


OUTBREAK OF DIARRHOEA AND VOMITING (CAUSE UNKNOWN)

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Introduction

1. Clinical features of dehydration

- a) **Mild dehydration:** Symptoms include: Lassitude, Anorexia, Nausea, Light headedness and Postural hypotension. Often there are no signs
- b) **Moderate dehydration**
 - ☑ Symptoms include: Apathy/tiredness, Dizziness, Nausea, Headache, Muscle cramps.
 - ☑ Signs include: Pinched face, Dry tongue or sunken eyes, Reduced skin elasticity, Postural hypotension (systolic blood pressure > 90 mmHg), Tachycardia, Oliguria.
- c) **Severe dehydration**
 - ☑ Symptoms include: Profound apathy, Weakness, Confusion, leading to coma,
 - ☑ Signs include: Shock, Tachycardia, Marked peripheral vasoconstriction, Systolic blood pressure < 90 mmHg, Uraemia, oliguria, or anuria.
- d) **People at high risk**
 - 👤 Age — elderly people are at greater risk of serious dehydration and complications.
 - 👤 Pregnancy — pregnant women are at greater risk of dehydration and complications.
 - 👤 Comorbidities — people who are immunocompromised or have co-existing medical conditions (for example renal impairment, inflammatory bowel disease, diabetes mellitus, or connective tissue disorders) are at greater risk of more severe disease and complications.


2. Causes of acute diarrhoea


- a) Infection
 - ❓ *Clostridium difficile* is a common cause of infectious diarrhoea in older people who have taken antibiotics.
 - ❓ Infections that can present with bloody diarrhoea include cytomegalovirus, *Campylobacter jejuni*, *Salmonella* spp., *Escherichia coli* O157, *Vibrio parahaemolyticus*, *Shigella* spp., *Yersinia* spp., *Aeromonas* spp., *C. difficile*, *Entamoeba histolytica*, schistosomiasis, Ebola virus.
- b) Drugs associated with diarrhoea include allopurinol, antibiotics, digoxin, colchicine, cytotoxic drugs, magnesium-containing antacids, metformin, non-steroidal anti-inflammatory drugs, proton pump inhibitors, selective serotonin reuptake inhibitors, statins, theophylline, thyroxine and high-dose vitamin C.
- c) Constipation with 'overflow diarrhoea'.
- d) Other causes of acute diarrhoea include anxiety, food allergy, acute appendicitis, acute radiation enteritis, and intestinal ischaemia.
- e) Acute diarrhoea may be the early presentation of a chronic cause - e.g., inflammatory bowel disease.





Procedure

1. **Investigations:** Investigations are not always necessary for adults who present with acute diarrhoea.




- ⚠ Seek advice from the local health protection unit regarding the need for investigations if:
 - ❓ Suspected public health hazard - eg, food handlers, healthcare workers, elderly residents in care homes.
 - ❓ Outbreaks of diarrhoea when isolating the organism may help pinpoint the source of the outbreak.

 Contacts of people infected with certain organisms that may cause serious clinical sequelae - eg, *E. coli* O157 Stool specimen: pathogens routinely looked for during microbiological examination of a stool sample are *Campylobacter* spp., *Cryptosporidium* spp., *E. coli* O157, *Salmonella* spp. and *Shigella* spp. Testing for other pathogens may be carried out depending on the clinical history:




 A stool specimen may be required to be sent for culture and sensitivity if:

-  The person is unwell (eg, fever, dehydration), immunocompromised, recently received antibiotics or recent hospital admission (request specific testing for *C. difficile* if the patient has recently received antibiotics or has been in hospital).
-  Blood or pus in the stool.
-  The underlying cause is uncertain or the diarrhoea is persistent (eg, longer than one week).
-  Diarrhoea occurs after foreign travel to anywhere other than Western Europe, North America, Australia, or New Zealand.






3. Management

-  Management is usually supportive with attention to fluid intake and nutrition. The priority when treating acute diarrhoea is the prevention or reversal of fluid and electrolyte depletion.
-  The underlying cause may require specific treatment.
-  Management of complications, especially dehydration. Anti-secretory medicines are designed to be used with rehydration treatment. They reduce the amount of water that is released into the gut during an episode of diarrhoea. They can be used for children who are older than 3 months of age and for adults. Will be prescribed as required.








4. Medication

-  Symptomatic treatment of acute diarrhoea may be beneficial but should only be used when there is a clear diagnosis of the underlying cause of the diarrhoea. Antimotility medication relieve symptoms of acute diarrhoea. Antispasmodics are occasionally useful for treating abdominal cramp associated with diarrhoea.
-  Antibacterial medication are unnecessary for most cases of gastroenteritis but are required for systemic bacterial infection or for some bacterial causes of gastroenteritis such as campylobacter enteritis, shigellosis and salmonellosis. Ciprofloxacin may be useful for prophylaxis or treatment of traveller's diarrhoea.
-  Colestyramine provides symptomatic relief of diarrhoea following ileal disease or resection.

5. Hospital admission may be required if:

-  Severe Vomiting and inability to retain oral fluids.
-  Features of severe dehydration or shock.
-  Bloody diarrhoea.
-  Abdominal pain and tenderness (may suggest acute appendicitis or other intra-abdominal cause).
-  Increased risk of poor outcome - eg, co-existing medical conditions (immunodeficiency, inflammatory bowel disease, heart disease, diabetes mellitus, renal impairment), drug therapy (eg, immunosuppressants or systemic steroids).

6. Complications

-  Dehydration and electrolyte imbalance.
-  Reactive complications - e.g., [reactive arthritis](#).
-  Spread of infection.
-  [Irritable bowel syndrome](#).
-  [Lactose intolerance](#).
-  [Haemolytic uraemic syndrome](#).
-  Reduced drug absorption may have potentially serious consequences - e.g., anti-epileptic drugs, oral contraceptives.

7. Prognosis

- ☑ Many people with symptoms of acute diarrhoea will improve within 2-4 days: [rotavirus diarrhoea](#) usually lasts 3-8 days, [norovirus](#) around 2 days and infection with *Campylobacter* spp. and *Salmonella* spp. 2-7 days.
- ☑ *Giardia* [spp. infection](#) may persist and cause chronic diarrhoea.
- ☑ Diarrhoea is the second leading cause of death worldwide
- ☑ **Record information about the severity of the illness.**
 - 👉 Frequency and consistency of stools.
 - 👉 The presence of blood in stools.
 - 👉 Frequency of vomiting.
 - 👉 Ability to eat and drink.
 - 👉 Any signs of [dehydration](#)
 - 👉 Check temperature, blood pressure, heart, respiratory rate (as applicable).
- ☑ **Investigate potential causes or contributing factors.** Ask about:
 - 👉 Recent contact with someone with acute diarrhoea and/or vomiting.
 - 👉 Exposure to a known source of enteric infection (possibly contaminated water or food).
 - 👉 Recent travel abroad.
 - 👉 Recent antibiotics or hospital admission within the last 8 weeks — suspect infection with *Clostridium difficile*.
 - 👉 Use of drugs such as proton-pump inhibitors and metformin.
- ☑ **People at high risk**
 - 👉 Age — elderly people are at greater risk of serious dehydration and complications.
 - 👉 Pregnancy — pregnant women are at greater risk of dehydration and complications.
 - 👉 Comorbidities — people who are immunocompromised or have co-existing medical conditions (for example renal impairment, inflammatory bowel disease, diabetes mellitus, or connective tissue disorders) are at greater risk of more severe disease and complications.
- ☑ **Review medications:**
 - 👉 Certain medications (for example diuretics and angiotensin-converting enzyme inhibitors) can exacerbate dehydration and renal failure.
 - 👉 Be aware that the efficacy of certain medications (for example warfarin, anticonvulsants, and the oral contraceptive pill) may be affected by severe diarrhoea.
 - 👉 Put into place all Isolation Nursing Procedures.
 - 👉 Inform the GP
 - 👉 Encourage fluids, clear water or electrolyte replacement fluids or as prescribe
 - 👉 Staff with Symptoms:
 - ⚠ must report sick
 - ⚠ may be required to collect a stool specimen (if the Communicable disease Officer advises)
 - ⚠ staff will be excluded from work until the Public Health Authorities allow them to return. Usually, if the first stool specimen is clear and the person is symptom free, they may return after 48 hours
 - ⚠ in some cases if the first stools specimen is found to be positive then three clear/negative stool specimens will be required after this before returning to work
- ☑ *The above are guidelines, liaison with the Communicable Disease Office will take place depending on the cause of the outbreak.*
- ☑ *Notification will be required to CQC and requirements under RIDDOR must be followed.*

8. Procedure: Individuals with symptoms:

- ⚠ The Senior Nurse / Manager will inform the GP and Communicable Disease Office
PHE Surrey and Sussex Health Protection Team (South East),
County Hall, Chart Way,
Horsham,
RH12 1XA

Telephone: 0344 225 3861 option 1 to 4 depending on area then option 1
Out of hours for health professionals only: please phone 0844 967 0069

- ⚠ Stool specimens should be collected as soon as symptoms occur. Chart frequency and type of stool
- ⚠ Discussion and advice regarding admissions, discharges and transfers will take place with the Communicable Disease Office
- ⚠ Staff must wear gloves and aprons when dealing with faeces and vomit. Sodium Hypochlorite solution, or product of equal efficiency, should be poured on and left for five minutes to disinfect any spillages which occur
- ⚠ Sodium Hypochlorite solution should be used to wash commode and lavatory seats, hand-wash basins, taps and door handles
- ⚠ It will be necessary to isolate the infected people in their own rooms
- ⚠ Each room should have its own supply of gloves, aprons and masks if advised. All waste should be placed in the appropriate bag inside the room
- ⚠ Linen will be placed in red bags to go to the laundry and washed at the advised temperature for infected laundry.
- ⚠ All waste will be treated as contaminated and will be sent for incineration in yellow bags as per organisational policies
- ⚠ It is advisable, where possible for the same group of nurses to attend to these Individuals to minimise the risk of mass infection
- ⚠ Give prescribed medication
- ⚠ Encourage fluid intake to prevent dehydration and record on a fluid balance chart
- ⚠ Symptoms of dehydration will be assessed by the GP
- ⚠ Meticulous hand washing must be observe before entering the room and before leaving especially
- ⚠ Visitors will be informed and given guidance concerning the infection control procedures.
- ⚠ These precautions will continue until advised to stop

Further Guidance

Gastroenteritis Clinical Guideline Summaries Last revised by NICE in August 2014.