
Bath & North East
Somerset Council

Improving People's Lives

**Infection Prevention
And Control
Workbook- A guide for
Adult Social Care
*ANSWERS***

3. Causes of Infection

1. Growth and multiplication of microbes - can you give an example of a bacteria and an example of a virus?

Bacteria: **MRSA; Clostridium difficile; TB**

Virus: **Norovirus; Flu; HIV; Hepatitis**

2. Can you name 3 conditions that microbes need to grow?

1. **Temperature**
2. **Moisture**
3. **Time**
4. **Food**
5. **Water**
6. **PH**
7. **O₂**

3. The Chain of Infection describes the way an infection spreads - can you name the six links of the 'chain' and briefly describe each one?

1. Infectious Agent - microbe that causes infection
2. Reservoir – place where microbe can live and multiply
3. Portal of Exit – means by which the microbe escapes
4. Mode of Transmission – how the microbe moves or spreads
5. Portal of Entry – how the microbe invades the host
6. Susceptible Host – people invaded by microbes

4. Using an example of a common cold, tick which phrase belongs to which link of the chain of infection:

	Infectious Agent	Reservoir	Portal of Exit	Transmission	Portal of Entry	Susceptible Host
Sneezing openly without covering nose & mouth			✓			
Common cold virus	✓					
Respiratory system		✓				
Unwashed contaminated hands				✓		
Person you care for						✓
Touching your eyes, mouth or nose					✓	

5. List the most common signs and symptoms of an infection:

- Fever
- Blocked nose
- Stiff neck
- Chills/Sweats
- Cough/change in cough
- Sore throat
- D/&V
- Shortness of Breath
- Abdominal pain

6. Some people develop Diarrhoea and this may be a sign of infection such as Norovirus. Complete the following sentence by deleting the incorrect words as appropriate.

Diarrhoea is defined as having 2, 3, 4 or more loose or liquid stools per hour, per day, per week or more frequently than is normal for the individual.

Diarrhoea is defined as having **2** or more loose or liquid stools **per day** or more frequently than is normal for the individual.

4. Specific Infections and Conditions

1. Clostridium difficile Infection (CDI, C. diff)	
Common causes	Recent treatment with antibiotics, contamination from the environment or another patient
Common symptoms	Diarrhoea, fever, abdominal cramps/pain
List prevention & control measures	Prudent antibiotic use, exclusion, hand washing, isolation, treatment

2. Norovirus	
Spread by	Contaminated surfaces, another person with Norovirus, contaminated hands, eating contaminated food
Common symptoms	Projectile vomiting, diarrhoea, fever, abdominal cramps/pain
List prevention & control measures	Hand washing, standard precautions, isolation, cleaning, exclusion

3. Urinary Tract Infection	
Common causes	Contamination from faeces, catheters, blocked urinary tract, dehydration
Common symptoms	Frequency, pain on urination, cloudy urine, dehydration, feeling unwell/tired, confusion, agitation
List prevention & control measures	Good toilet hygiene, empty bladder fully, hand washing, drinking plenty of fluids, good catheter care

4. Influenza

Spread by	Coughs, sneezes, contaminated surfaces
Common symptoms	Sudden fever, aches, sore throat, headache, tiredness, loss of appetite
List prevention & control measures	Cough/sneeze into a tissue, hand hygiene, respiratory hygiene, cleaning, bin used tissues straight away, cover mouth/nose when coughing/sneezing

5. Scabies

Spread by	Close personal contact, sexually, prolonged skin/skin contact
Common symptoms	Rash to wrists, hands, elbows
List prevention & control measures	Treatment for all patients and contacts, cleaning, exclusion, use of PPE, washing bedding/clothing, avoid skin to skin contact

6. Meticillin resistant Staphylococcus aureus (MRSA)

Spread by	Contamination from another person, environment or equipment, contaminated hands, surfaces
Common symptoms	None for colonisation Infection – redness to wound, fever, pain, discharge, swelling
List prevention & control measures	Standard Precautions, hand washing, cleaning (environment/equipment), treatment if required

7. Tuberculosis (TB)

Spread by	Coughs/sneezes
Common symptoms	Persistent cough, significant weight loss, night sweats, fever, fatigue, swellings
List prevention & control measures	Antibiotic treatment, vaccine, standard precautions, isolation for 2 weeks of treatment, prompt diagnosis, screening of contacts, screening for latent TB, use of masks (where appropriate)

5. Outbreaks of Infection

1. Describe what you understand by the term “Outbreak”?

An ‘outbreak’ is an incident where two or more persons have the same disease or similar symptoms and are linked in time, place and/or person association.

An outbreak may also be defined as a situation when the observed number of cases unaccountably exceeds the expected number at any given time.

2. What immediate actions might you take if you suspect an outbreak of infection?

Clean up D/& V straight away

Isolate

Cordon off affected area until cleaned

Ventilation

PPE

Increased hand hygiene

3. Who would you inform and seek advice from about the outbreak?

UKHSA

Infection Lead

EHO

Manager

OH

4. What information would they need to know from you?

Patients details

Number of others with symptoms (residents and staff)

What the symptoms are

Onset date & duration of symptoms

Source

Contacts

5. Where would you find your local policies and guidance in the event of an outbreak?

SW Councils UKHSA care home and residents care guidance:

<https://swcouncils.gov.uk/ukhsa-care-home-and-residential-care-guidance/>

6. What should you do if you or a colleague develops diarrhoea and/or vomiting?

Report it to your manager

Report to Facilities Manager so area can be cleaned

Tell them to go home

Not to return until 48 hours symptom free

Take a sample

7. Can you remember some of the important points for preventing infection during an outbreak?

Hand washing

Standard precautions

Cleaning – frequency and type of cleaning agent

Ventilation

PPE

8. Name two infections that can cause an outbreak:

Norovirus

Flu

Cryptosporidium

E. coli

Scabies

TB

Campylobacter

Giardia

Clostridium difficile

6. Standard Infection Control Precautions

6.1. Hand Hygiene

1. Hand hygiene is the single most important thing you can do to prevent the spread of infection. Why?

Removes dirt/microbes, blood, bodily fluids

Prevents spread

2. Name 5 occasions of when you must carry out hand hygiene:

	Before and after contact with a patient
	Before and after contact with a patient's environment
	Before and after eating
	After going to the toilet
	Before and after leaving a patient's home/clinical environment
	After removing gloves
	After exposure risk
	After handling waste/linen

3. Note a situation where alcohol-based hand rub should not be used?

If hands are visibly dirty/solid
 Caring for certain patients – patients with *C. difficile* or Norovirus
 After glove use

4. Number the steps (in order) if using soap and water - tick if the step also applies to alcohol based hand rub:

Number	Step	Tick	Number	Step	Tick
1	Wet your hands		5	Rub palm to palm with fingers interlaced	✓
11	Dry your hands thoroughly		8	Rub the tips of fingers in the opposite palm in a circular movement	✓
3	Rub hands palm to palm	✓	2	Apply soap/alcohol-based hand rub from a dispenser	✓
7	Rub each thumb in turn, holding it in opposite hand with rotational movement	✓	9	Rinse your hands with running water	
12	Dispose of paper towel in correct waste bin		4	Rub back of hands with palm of other hand, fingers interlaced	✓
6	Rub back of fingers to the opposing palm with fingers interlocked	✓	10	Turn off taps with your wrists or a paper towel	

5. Good practice suggests you should adopt a bare below the elbow approach, free from all jewellery except a plain band ring.
What is the uniform and jewellery policy in your work environment?

Check your care provider policy

6. Why is this important?

To enable good hand hygiene
Prevent spread of infection/microbes
To promote good hygiene

7. You are encouraged to promote hand hygiene to all staff, visitors and the people you care for, their family /visitors. How might you help someone do this if they are bed bound?

Provide a bowl, soap and towel to help them wash their hands
Use of hand wipes until they can get to wash hands with water and soap

8. Consider all the activities you carry out during your day and not just at work. Discuss with your colleagues and your trainer, manager or supervisor when you might carry out hand hygiene and summarise your discussions.

Before and after care being given
After going to the toilet
Before and after leaving patients home
Before and after eating
After walking the dog
Before and after preparing food
Caring for children
Changing nappies
Before and after glove use

6.2. Respiratory and Cough Hygiene

1. How are the common cold and influenza virus spread?

Coughs and sneezes
Contaminated surfaces, hands and tissues

2. What is the purpose of a sneeze?

To expel irritants from the nasal cavity

3. If you do not have a tissue handy, what would you do if you needed to cough or sneeze?

Sneeze or cough into elbow, as reduces amount of contamination
Cough/sneeze into hands and wash straight away

4. Name 3 measures you can take to prevent the spread of cold and influenza:

1. Good respiratory hygiene
2. Vaccination
3. Good hand hygiene
4. Cleaning

5. Influenza vaccination is available every year. Why do you need to have it every year?

The circulation virus changes each year and the strains can change so in order to give full protection annual vaccination is required.

6. Who should be immunised against the flu?

The flu vaccine is recommended for people at higher risk of getting seriously ill from flu and the criteria can change every year. Please check the [Influenza: the green book](#)

(<https://www.gov.uk/government/publications/influenza-the-green-book-chapter-19>) for the most up to date eligibility.

People aged 65 years and over (including those becoming 65 years by 31 March 2024)

People aged six months to under 65 years with certain long-term health conditions.

Those who are pregnant.

All those aged 2 or 3 years on 31 August 2023 (born between 1 September 2019 and 31 August 2021) to primary school Year 6

People living in long-stay residential care homes or other long -stay care facilities.

People who are the main carer for an older or disabled person, or receive a carer's allowance.

Household contacts of immunocompromised individuals

Frontline health and social care workers

6.3. Personal Protective Equipment (PPE)

1. Wearing PPE is a requirement of Health and Safety Legislation.
Name the most common types of PPE in use?

Gloves Apron Ear-protection Hi-vis
Gowns Visors Goggles Coveralls
Face masks Helmets Safety boots/shoes

2. Why do you need to wear PPE?

To reduce the risk of harm/contamination
To prevent the spread of infections/microbes
To protect against H&S risks at work

3. What factors will you need to consider before deciding what PPE is needed?

What are the risks? What is the exposure?
How long will I need PPE? Sterile/clean procedure?

4. In what order do you remove PPE such as gloves, apron, mask and eye protection if worn?

Gloves
Apron/gown
Eye protection
Mask

5. Where should PPE be stored?

In a dry clean cupboard in original packaging to enable expiry date check

6.4. Safe Management of Blood & Body Fluid Spillages

1. When a spillage occurs, you need to do an assessment of the spill. Describe 3 things to consider?

1.	What is the spillage
2.	How to clean it up safely
3.	What PPE do I need

2. Locate and read your local policy for dealing with a spillage of blood or body fluid in your setting, summarise your findings below?

Check with your care home policy for dealing with a spillage of blood or body fluid in your setting.

3. Note the process for cleaning a spill on a hard surface: - Please include any dilutions of products where appropriate:

Blood and body fluids	Urine, Faeces, Vomit without blood visible
<p>If trained to use spill kits, then that should be used. If not soak up spillage with paper towels, dispose of them in yellow/orange bag, clean with disinfectant and then a chlorine-based agent. PPE must be worn and if risk of splash, then mask/goggles or visor</p>	<p>If trained to use spill kits, then that should be used. If not soak up spillage with paper towels, dispose of them in yellow/orange bag, clean with disinfectant and then a chlorine-based agent – ensure COSHH followed for cleaning urine. PPE must be worn and if risk of splash, then mask/goggles or visor</p>

4. How would you clean a spill on soft furnishings?

Clean with warm soap water, if possible then steam clean
 Follow manufactures guidance for cleaning
 If heavily contaminated, consider removal and destruction

5. What key factors must be noted in the manufacturer's instruction when using cleaning solutions for blood & body fluid spillages?

Follow manufactures guidance for cleaning.
 Contact times for cleaning agents

6. What PPE would you use when dealing with a spillage where there may be a risk of splashing?

Goggles, face mask, visor

6.5. Safe Management of Blood & Body Fluid Spillages Occupational (post) Exposure Management

1. Can you list some of the items that you may encounter that would be either?

Sharps	Spillages
Needles Scissors Knives Razors, broken glass, bites/scratches	Bodily fluids (urine, blood, faeces, sputum) Water Medication Vomit

2. What is a blood borne virus?

A blood-borne virus is a virus that some people carry in their blood and can be spread from one person to another. Those infected may show little or no symptoms of serious disease, but other infected people may be severely ill. E.g. Hepatitis B, Hepatitis C and HIV.

3. How might it be transmitted (spread)?

Sexually Infected blood products
Used sharps Sharing drug paraphernalia
Mother to baby Tattooing & body piercing

4. What is recommended if you have an abrasion or cut in your skin before you go to work?

Cover with a waterproof plaster/dressing

5. Name 3 important points about the safe disposal of sharp items?

1. Dispose of as soon as used
2. Be sharps aware in patients' homes
3. Do not re-sheath
4. Person using sharp should be the one disposing of it
5. Mismanagement of sharps can cause significant harm

6. Where would you find details of the procedure if you have a sharps/bite injury?

Check your care home policy for details of the procedure if you have a sharps/bite injury.

7. What procedure would you follow immediately if you have a sharps injury or a bite which has broken the skin? List what you would do:

Clean
Cover
Report to manager and OH
Complete incident form
Attend A&E

6.6 Safe Management of the Care Environment

1. In your own words, can you explain why cleaning the environment is important?

Removes dirt/microbes from surfaces and the environment
Prevents the spread of infection/microbes
Important part of infection control

2. Name areas of the care environment that would need cleaning more often and why?

Toilet – contamination from body fluids
Kitchen – contamination from microbes
Bathrooms – contamination from body fluids
Equipment – as can become contaminated

3. How often do you think cleaning should take place? Why?

Most personal items daily and equipment used for personal care
Bathrooms/kitchens – daily
Vacuuming weekly

4. Who is responsible for ensuring the care environment is kept clean?

Staff should be aware the environmental cleaning schedules and clear on their specific responsibilities.

5. What cleaning solution would be considered the most effective when cleaning the home?

Warm water and detergent for most with the use of a bleach product where required.

6. Are you aware of colour coding for clean – can you name the colours and the areas they are used for?

Red = Bathrooms, washrooms, toilets etc

Blue = General areas (offices, public areas)

Green = Kitchen/catering areas

Yellow = Isolation areas/Areas of high risk

7. What PPE should you wear when cleaning and why?

Gloves (household rubber gloves are fine) and an apron

6.7 Safe Management of Care Equipment

1. Care equipment can be categorised as below. Describe what these terms mean;
- a. Single use:

Single use means that the manufacturer intends the equipment to be used once and then discarded.

- b. Give an example of a single use item and how it is cleaned and maintained:

Gloves and aprons – disposed of after use.

- c. Single person use:

Single person use may be used for more than one episode of use on one patient only; the device may undergo some form of reprocessing between each use.

- d. Give an example of an item that is for single person use and how it is cleaned and maintained:

Hoist sling, denture pots – both can be cleaned after use and then discarded once patient no longer requires them.

- e. Multi-use:

Multi-use means that the item can be reused on more than one patient following decontamination between each use.

- f. Give an example of a multiuse item and how it is cleaned and maintained:

Commode – cleaned with detergent and then chlorine from top to bottom

BP cuffs – detergent wipe

2. Find out if you have a cleaning and maintenance schedule for items of care equipment and who has overall responsibility to ensure it is followed?

The responsibility for maintaining the equipment used is by whoever provided it; however carers do have a responsibility to report faulty/damaged equipment and they should be cleaning it between use.

3. Why do you think cleaning care equipment is important?

To remove dirt, body fluids and microbes
To prevent contamination and spread of infection

4. What items of PPE is essential to be worn when cleaning care equipment?

Gloves and apron and if splash risk then mask/goggle or visor.

6.8. Safe Management of Linen

1. Describe the safe management and storage of **clean linen** in your care setting?

Stored in a clean and designated area, preferable a cupboard and encourage this with patients to prevent contamination.

2. Describe the safe management of **used linen** in your care setting?

Do not hand sluice – do not shake, or rinse in water
Remove and put into linen bag/basket or washing machine

3. Describe the procedure for removing **used linen**?

If required wear gloves and apron, fold linen in on itself, then put into laundry bag/basket for washing.

4. How might this differ if the linen is used or infectious?

If the laundry is infectious, you should wear gloves and apron, remove and where possible put straight into the machine or tie in a bag for relatives to wash. It should not be put in with other dirty laundry.

5. What PPE would you require?

Gloves and Apron

6.9. Safe Management of Waste

1. Waste can fall under 3 categories, domestic, clinical, and hazardous waste. Complete the table below and identify how each type of waste is handled in your area:

	What waste goes in each category	What colour bag (if used)	How is this waste handled
Domestic	General waste	Black bag	Normal procedure
Clinical	Healthcare waste sharps	Orange bag sharps bin	Contractor
Hazardous	Highly infectious	Yellow bag	Contractor

2. Who is responsible for the safe disposal of waste in your care setting?

All care staff and contractor

3. Sharps containers should be disposed of when $\frac{3}{4}$ full or every three months even if it is less full. Note the procedure for disposal of this healthcare waste in your area?

Close and sign/date box and put in agreed area for collection from specialist contractor.

4. Why is good hand hygiene important after handling waste?

To prevent the risk of contamination and spread of infection.

6.10. Patient Placement (or those you care for)

1. It is occasionally necessary to separate a person you care for from others in the care environment. Note below why this might be necessary?

Infection risk to others or to protect the patient from infection.

2. Name the common signs and symptoms a person with a transmissible infection might have that would indicate the need for isolation?

D&V; flu like symptoms; TB

3. Who should be consulted in making the decision to isolate the person and what information will you need at hand to pass on?

Clinician looking after the patient

4. Which Standard Infection Control Precautions will be important to prevent the spread of infection? List all that apply:

Hand Hygiene

Cleaning

Respiratory hygiene

Ventilation

PPE

5. When someone needs to be separated from others, they may feel frightened and isolated. Describe the measures you could take to alleviate this.

Make sure they understand why

Give information for them to read

If possible, tell them how long it will be for

Reassure them, they can have visitors