

A circular logo with a maroon center containing the text 'Infection Prevention & Control' in white. It is surrounded by concentric rings of orange and blue, with several thin, curved lines in blue, green, and purple extending from the top left.

# Infection Prevention & Control



## Infection Prevention and Control

Level 1 - All staff including contractors, unpaid and voluntary



# What you will learn in this session

1. How you can contribute to infection prevention and control
2. Local policies and procedures for infection prevention and control
3. Your responsibility to infection prevention and control and standard precautions, including:
  - Hand Hygiene
  - Personal Protective Equipment (PPE)
  - Management of Blood and Body Fluid Spillage
  - Management of Occupational Exposure including Sharps
  - Management of the Environment
  - Management of Care Equipment
4. How to recognise and act when your personal health and fitness may pose a risk of infection to others at work



## Why is this important?

- Monitoring and preventing healthcare-associated infections is a mandatory and priority requirement
- It is everybody's responsibility
- Healthcare-associated infections prolong a patient period of ill health
- Over 6% of hospital patients in England acquire some form of infection (HPA, 2012)
- In 2012 there were 292 deaths from MRSA and 1646 from C-Diff infections
- E-coli and Salmonella cases are rising and becoming resistant to antibiotics
- Healthcare-associated infections cost the NHS billions of pounds each year

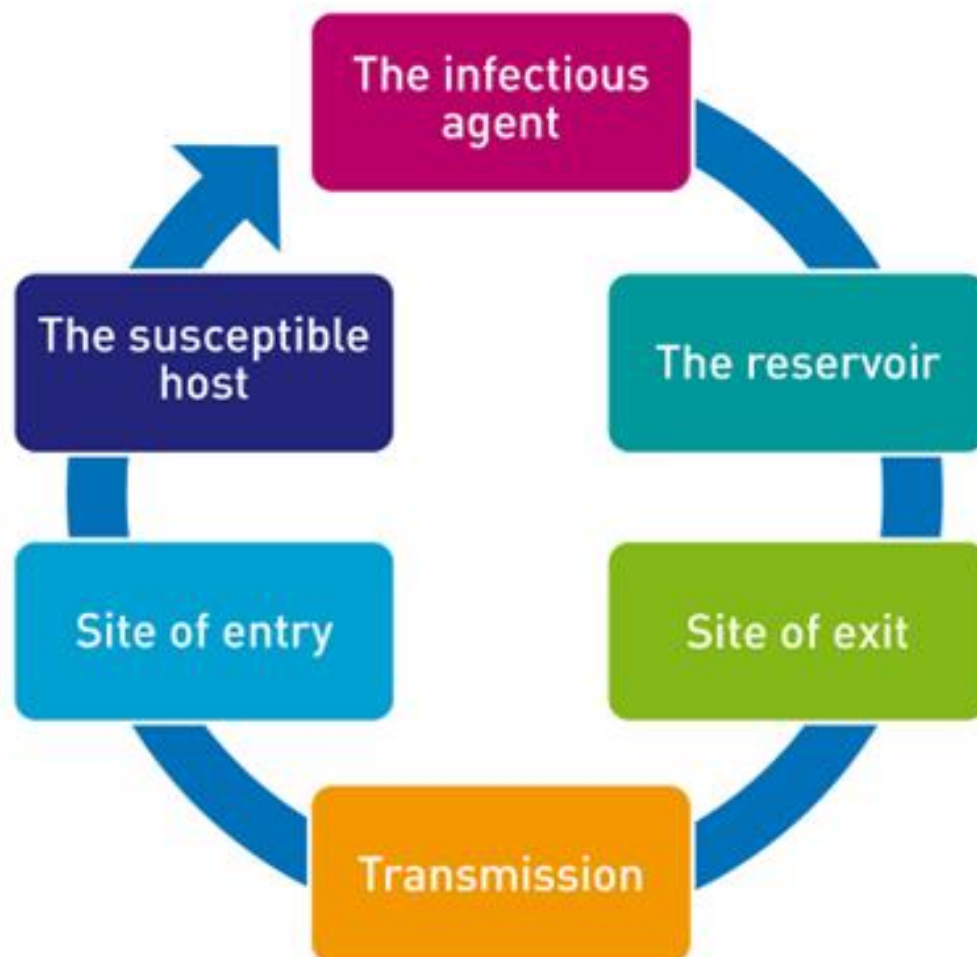




# What are Healthcare Associated Infections?

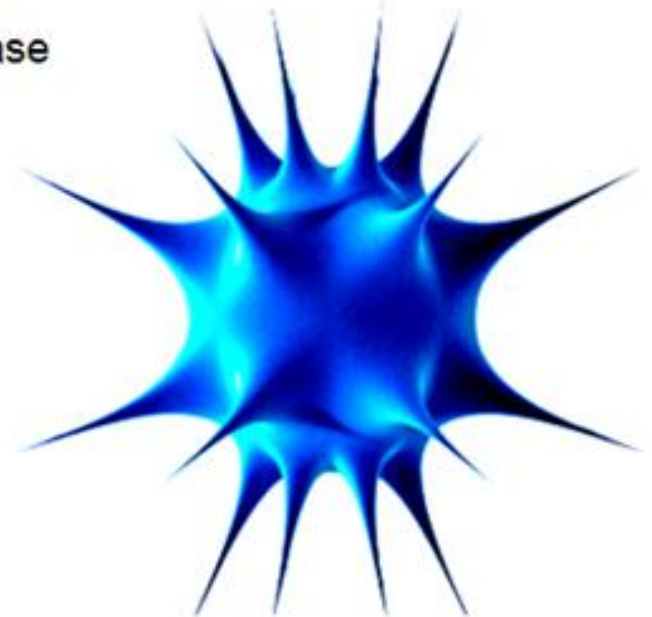
- Acquired as a result of healthcare interventions
- Clients in Social care settings are also at risk
- Develop as a direct result of contact in a healthcare setting
- Numerous factors increase the risk of individuals acquiring an infection
- Poor practice / standards of infection prevention and control increase the risk of occurrence

# Chain of infection



# Infectious agent...

- Micro-organisms live in and outside of our bodies
- Generally harmless or even helpful
- An infectious agent (pathogen) is a micro-organism with the ability to cause disease
- This can be bacteria, viruses, fungi or parasites
- Possibility of infection related to:
  - **Virulence** (ability to grow / multiply)
  - **Invasiveness** (ability to enter tissue)
  - **Pathogenicity** (ability to cause disease)





# The reservoir

- Reservoirs are where micro-organisms reside and multiply
- Without them infectious agents could not survive and therefore could not be transmitted
- Reservoir sites can include:
  - People
  - Equipment
  - Animals
  - Water
  - Food
  - Soil



## Site of exit

- The place of exit providing a way for a micro-organism to leave a reservoir
- For example, in the body this may include
  - Any orifice (nose, mouth etc)
  - Via any bodily substance





# Transmission

- This is the method of transfer by which the micro-organism moves or is carried from one place to another
- The principal routes of transmission are:
- **Direct contact**
- Human-to-human contact for example:
  - Touching, kissing, sexual intercourse or from a pregnant woman to her foetus through the placenta
- **Indirect contact**
  - Air-borne (ie coughing or sneezing)
  - Vector-borne (ie bite from a mosquito)
  - Dirty Equipment (ie touched by infected person)



## Site of entry

- This is the site through which the micro-organism enters its new host and causes infection
- Infectious agents can enter the body through various portals such as:
  - Inhalation
  - Ingestion
  - Sexual Contact
  - Breaks in the skin
  - Medical devices



# Susceptible host

- Some individuals have poor physical resistance and are more susceptible to infection due to:
  - Low immunity
  - Age (very young or old)
  - Malnourishment
  - Underlying disease
  - Medication
  - Surgery
  - Genetic abnormalities







# Standard precautions

- The chain of infection can be broken by taking the following standard precautions:
  - Personal Protective Equipment (PPE)
  - Safe use and disposal of sharps
  - Management of sharps injuries
  - Management and safe disposal of clinical waste
  - Cleaning and decontamination
  - Management of body fluid spillages
  - Management of laundry
  - Hand hygiene



# Personal Protective Equipment (PPE)

- PPE is designed to protect healthcare workers from exposure to potentially infectious material
- Make sure you know and use the appropriate PPE for the situation
- PPE equipment includes:
  - Gloves
  - Aprons/gowns
  - Masks
  - Protective eyewear
- This is not an exhaustive list. It is your responsibility to use PPE inline with local policy and the requirements of your role



# Management and safe disposal of clinical waste

<b>Yellow</b>	Infectious waste, must be incinerated
<b>Orange</b>	Infectious waste, can be treated to render safe prior to disposal
<b>Purple</b>	Cytotoxic/Cytostatic waste, must be incinerated by licensed facility
<b>Yellow/Black</b>	Offensive/Hygiene waste, can be land filled on licensed site
<b>Black</b>	Domestic waste, may be land filled /recycled

- You have a duty to ensure that clinical waste is disposed of in a safe and appropriate way
- Follow national Guidance
- Colour coded system used to segregate health care waste, shown in the table
- Ensure you know and follow your organisation's policy on waste management





# Management of body fluid spillages

- This includes blood, faeces, vomit, urine and pus, all of which may contain disease causing micro-organisms
- Hazardous to health and need to follow COSHH Regulations
- Responsibility of all staff to act promptly when encountering such spills. Follow local policy and ensure only those authorised to do so tackle the spill
- General best practice includes:
  - Use a spillage kit if available
  - Cordon off area and deal with spillage ASAP
  - Use PPE equipment
  - Follow correct cleaning procedure according to Public Health England
  - All waste generated is clinical waste

# Management of laundry

- Used linen can harbour large numbers of potentially infectious agents
- Precautions need to be taken at all stages of linen management:
  - Storage
  - Handling
  - Bagging
  - Transporting
  - Laundering
- Ensure you know and follow your local policy for the management of linen and clothing



# Cleaning and Decontamination

- A dirty / contaminated clinical environment is one of the factors that's contributes to HCAIs
- Decontamination is a combination of processes:
  - Cleaning
  - Disinfection
  - and/or sterilisation
- This destroys or removes micro-organisms and makes equipment safe to re-use
- Appropriate cleaning of equipment / environment with the correct cleaning / disinfection products
- Take special precautions in high risk areas and with high risk patients





## Safe use and disposal of sharps

- Sharps include needles, stitch cutters, scalpels, and any other sharp instrument
- Don't use a sharp if you don't have to
- Consider needle free devices
- Never re-sheath a needle
- Ensure correct assembly of the sharps container
- Dispose of sharps in an approved container at the point of use
- Don't exceed the fill limit
- Ensure the correct disposal of the container



# Management of sharps injuries

- A sharps injury is an incident which causes a sharp instrument to penetrate the skin
- Sharps injuries can result in the transmission of blood born viruses such as Hepatitis B, Hepatitis C and HIV
- If a sharp injury occurs:
  - **Encourage it to bleed**
  - **Wash it**
  - **Dry and cover it**
  - **Seek medical advice**
  - **Report it**
- Ensure you know and follow your organisation's policy on the management of sharps injuries



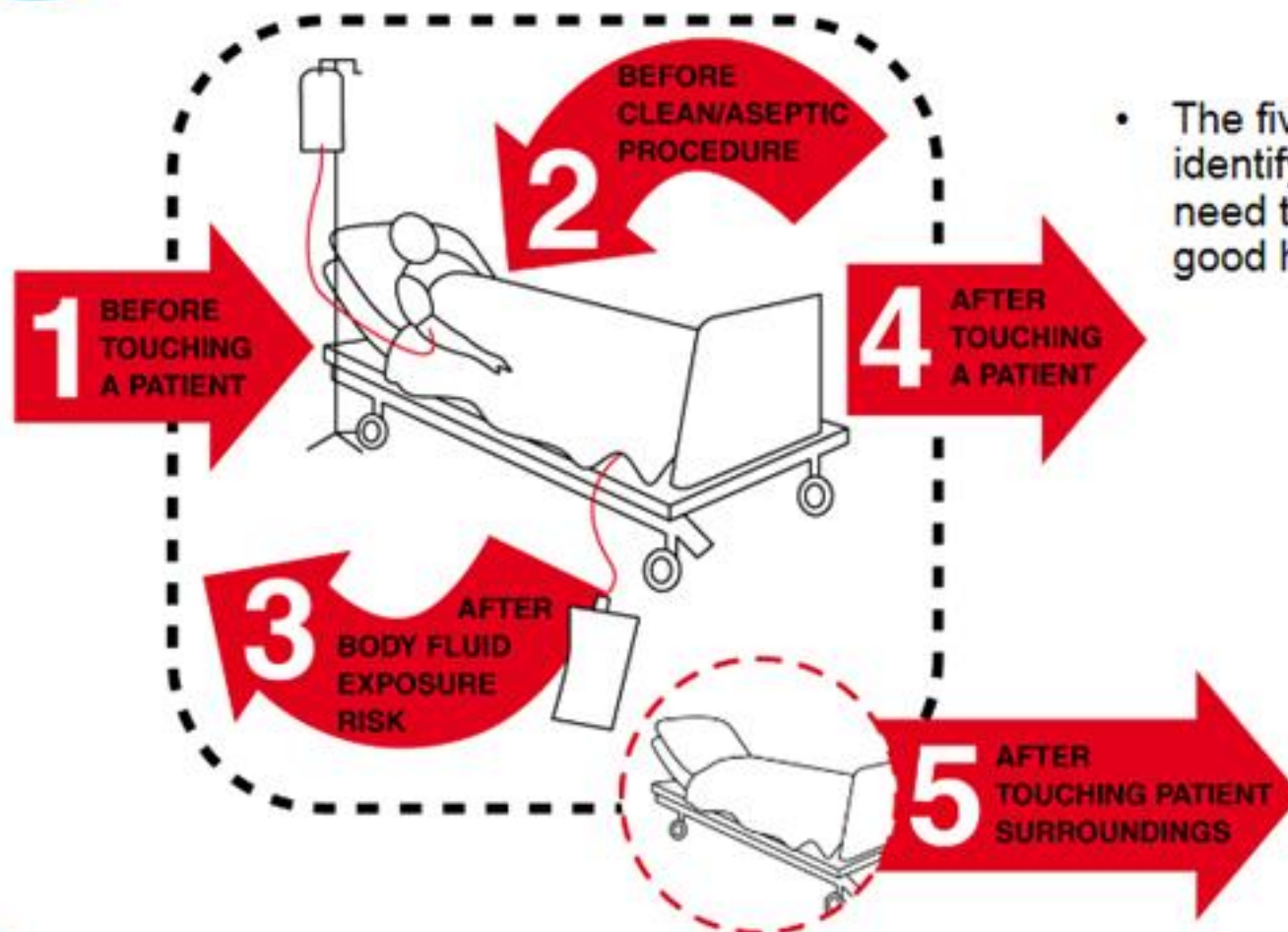
# Hand hygiene

- One of the most effective measures in the prevention of transmission of infection and reducing HCAs is improving hand hygiene
- Hand hygiene can be performed using:
  - Soap and water
  - Hand sanitizers
- Ensure you are aware of and follow the guidelines in your organisation for hand hygiene





# The five moments...



- The five moments identify the key points you need to follow to ensure good hand hygiene

## Barriers to effective hand hygiene

- To achieve effective hand hygiene, follow the “**Bear below the elbows**” dress code
- Avoiding wearing:
  - Jewellery (esp. rings with stones)
  - Long nails, nail varnish and false nails
  - Wrist bands
  - Wrist watches
  - Long sleeves



## Bare below the elbows

- All healthcare workers should be **bare below the elbow** when working in clinical areas or delivering direct patient care
- Refer to your organisation's dress code / uniform policy for further clarification and any other specific requirements





# Hand Hygiene Technique

**"This sink is for hand washing only"**

**Wet hands thoroughly with warm water and apply liquid soap**



Palm to palm



Right palm over left hand and left palm over right hand



Palm to palm fingers interlaced



Backs of fingers to opposing palms with fingers interlocked



Rotational rubbing of right thumb clasped in left palm and vice versa



Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa

**Remember to include wrists, remove all soap, dry hands thoroughly with paper towels and use moisturiser at least three times a day.**

**Alcohol hand gel should be applied in the same way briskly to increase evaporation**

**Hand washing should take approx 40-60 seconds**  
**Hand gel should take approx 20-30 seconds**

# Appropriate hand hygiene products

- Decontaminate hands between caring for different patients, or between different caring activities for the same patient
- The following are appropriate products to use:
  - Liquid soap
  - Sanitiser
  - Moisturiser
  - Individual hand towels
  - Foot pedal bin
- Where possible products should be wall mounted





# Is your personal health and fitness a risk to others?

## Have you got an infection?

- Take precautions to protect patients and colleagues from infection
- Contact Occupational Health

## Do you have direct patient contact?

- Protect against communicable diseases, ie TB, Hepatitis B and C, HIV, Flu
- Make sure you're immunised and these are up to date

## Have you come into contact with an infectious disease?

- Report it immediately
- Contact Occupational Health

## Don't feel well?

- Don't attend work if it will affect your health and/or the health of others

## Diarrhoea? Vomiting?

- Stay off work until you're symptom free for 48 hours







## Further information

[www.gov.uk/government/organisations/department-of-health](http://www.gov.uk/government/organisations/department-of-health)

[www.gov.uk/government/organisations/public-health-england](http://www.gov.uk/government/organisations/public-health-england)

[www.rcn.org.uk/](http://www.rcn.org.uk/)

[www.ips.uk.net/](http://www.ips.uk.net/)

[www.nric.org.uk](http://www.nric.org.uk)

[www.who.int/en/](http://www.who.int/en/)





## Summary

- Healthcare Associated Infections are often preventable
- All staff have a responsibility to follow infection control procedures all of the time wherever they work in the healthcare economy
- Follow appropriate guidelines/policies and safe systems of care
- Don't forget Hand Hygiene





## Assessment



The assessment includes 10 questions. All questions must be answered correctly to pass.

Once you have started, tick the correct option or options for each question. When you have chosen your answer move onto the next question.

At the end of the assessment, there is a declaration to sign and date. This is to ensure you have read and understood the content of the presentation and answered all of the 10 questions.

The assessment and declaration needs to be sent to [clinicalbank.mrt@dgh.nhs.uk](mailto:clinicalbank.mrt@dgh.nhs.uk) or posted to; Bank Information Co-ordinator, Professional Development Team, 2<sup>nd</sup> Floor South Block, Russells Hall Hospital, Dudley, DY1 2HQ.





Who is encouraged to challenge infection prevention and control non-compliance in a clinical area?  
(Select ALL that apply)

- ☐ Doctors
- ☐ Nurses
- ☐ Patients
- ☐ Visitors
- ☐ Ambulance staff
- ☐ Other staff



## Assessment

Where can micro-organisms (germs) reside and multiply? (Please choose ALL that apply from the following options)

- ☐ People
- ☐ Equipment
- ☐ Animals
- ☐ Water
- ☐ Food
- ☐ Soil

## Assessment

Why is hand hygiene so important? (Select ALL that apply)

- ☐ Helps prevent the spread of infection
- ☐ Helps prevent staff becoming ill
- ☐ Part of standard precautions



## Assessment

How do micro-organisms (germs) enter the body? (Please choose THREE answers from the following options)

- ☐ Social contact
- ☐ Inhalation (breathing in)
- ☐ Ingested (eaten)
- ☐ Sexually transmitted

## Assessment

Which of the following is not considered to be personal protective equipment (PPE)?  
(Please choose ONE from the following options)

- ☐ Gloves
- ☐ Masks and face protection
- ☐ Aprons/gowns
- ☐ Uniforms

What should you do if you suddenly develop diarrhoea and vomiting?  
(Select ONE of the following options)

- ☐ Come to work as normal
- ☐ Report your sickness to your line manager and not return to work until 48 hours after your symptoms stop
- ☐ Go to your GP and get signed off work for a week



## Assessment

Hand hygiene is an important part of infection prevention and control because germs are spread very easily through dirty hands. When should healthcare staff clean their hands?

(Select ALL that apply)

- ☐ Before and after touching a patient
- ☐ After using the toilet
- ☐ After touching a patient's surroundings
- ☐ After performing a dirty task like cleaning up a spillage of blood or body fluid
- ☐ Before preparing and serving food
- ☐ After coughing, sneezing and blowing your nose
- ☐ After taking off gloves



## Assessment

What are Healthcare Associated Infections (HCAIs)? (Select **one** of the following options)

- ☐ Infections that are only caught in hospitals
- ☐ Infections that are acquired from contact with health care services
- ☐ When a healthcare employee comes into work with an infection



What makes a person vulnerable to infection? (Please choose ALL that apply from the options below)

- ☐ Low immunity
- ☐ Age (very young or old)
- ☐ Malnourishment
- ☐ Underlying disease
- ☐ Medication
- ☐ Surgery
- ☐ Genetic abnormalities





## Assessment

If you have been off work and unwell with diarrhoea and vomiting, you should not return to work until you have been symptom free for: (Select ONE of the following options)

- ☐ 24 hours
- ☐ 48 hours
- ☐ 72 hours
- ☐ 1 week





## Declaration – Infection Control Level1

- I confirm that I have read and understood the content of the infection Control Level 1 presentation.
- I confirm that I have answered all 10 questions as part of the assessment.

NAME: .....

POSITION: Bank Only Clinical Support Worker/ Registered Nurse (cross off where appropriate)

SIGNATURE: .....

DATE: .....

