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Staffordshire & Stoke-on-Trent Partnership NHS Trust

Infection Control

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At the end of the session you will be able to

- Explain your legal responsibility and relevant policies and procedures
- List the types of common infections
- Explain why some people are more susceptible to infection
- Describe modes of infection
- Identify good practice in control of infection

Roles and Responsibilities

- Owners of a care organisation are responsible under health and safety legislation for maintaining an environment which is safe for visitors and staff alike.
- Effective infection control is part of the H&S process.
- All care settings should have a written policy that details the roles and responsibilities of the staff during an outbreak of communicable disease or episode of infection.
- Policies must be readily available, understood by all members of staff and that staff follow the policy.
- Staff training in the care sector is essential.

How are infections spread?

- Many micro-organisms live in or on the body - flora.
- Normal skin flora is known as 'resident' and is there all the time. It is not easy to remove.
- However if these 'normal' flora find their way into other areas of the body they may cause illness. Eg where bowel organisms enter the bladder and cause cystitis.

- Other micro-organisms appear on the skin from other people or from the environment and these are known as 'transient'. Easier to remove.

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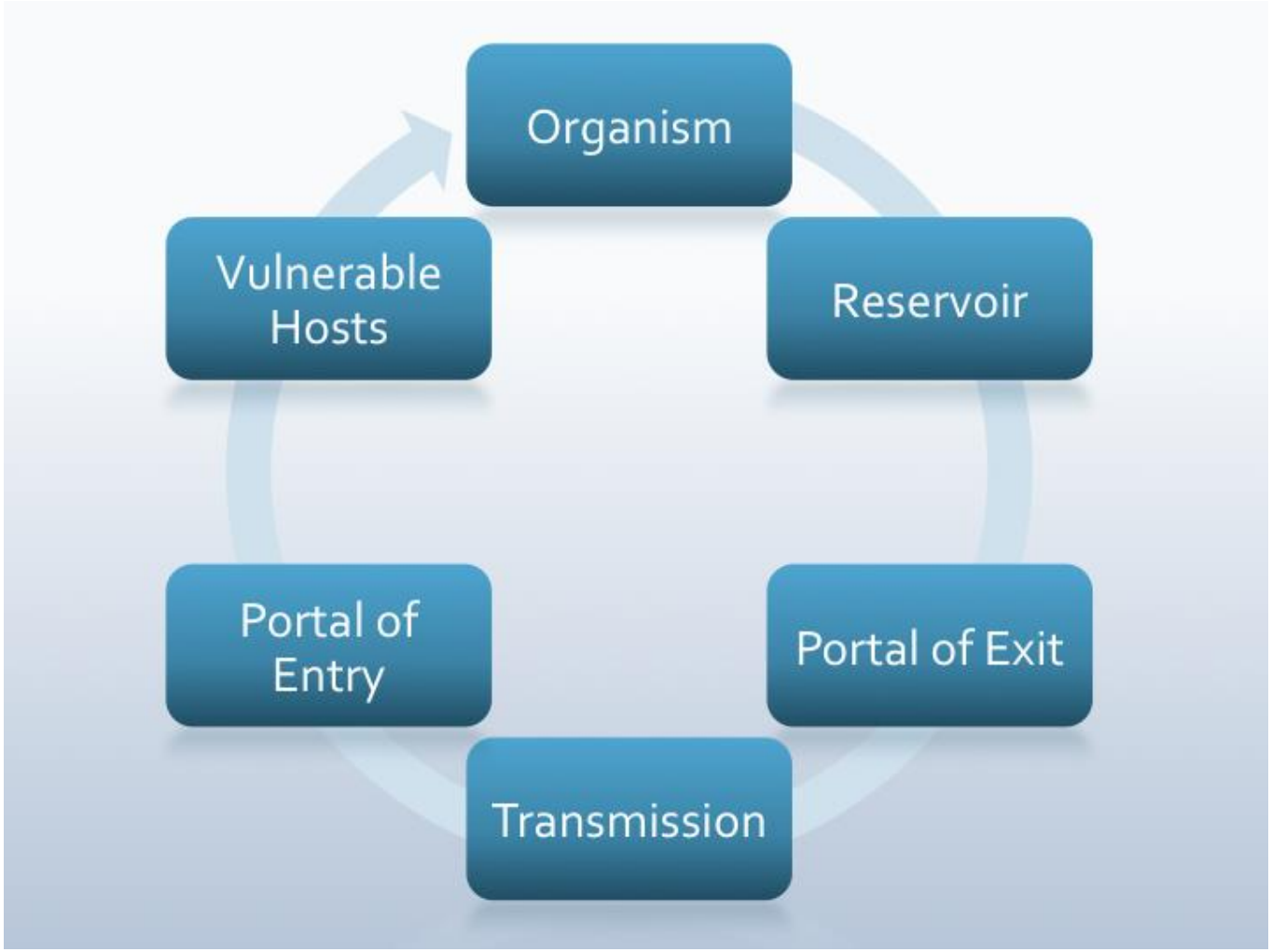
The chain of infection



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Organisms

Harmful pathogenic micro-organisms including

- Bacteria, viruses, parasites and fungi.

Reservoirs of infection

This can be equipment, the environment and the human body is the biggest and best reservoir for potentially pathogenic micro-organisms and the most common source of infection.

Points of Exit

Bodily fluids

- **Gastrointestinal** tract – faeces, vomit
- **Respiratory** tract – air droplets from mouth/nose
- **Genitourinary** tract – vaginal secretions
- **Blood**

Skin

Modes of transmission

The organism has now to get to a new host.

- Direct eg touching the persons skin or infected material.
- Indirect eg from the air
- Vehicle eg via an object like a syringe.
- Vector eg via an insects

Point of entry

The bacteria now needs to enter another host in order to survive.

In general they are the same as exits – **skin**, **aerosols, blood** and **bodily fluids**.

However some can be introduced by **ingestion** of contaminated food or water. Some can be introduced by **vehicles** such as catheters and **vectors** eg insects.

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Common Infections

- Scabies
- Clostridium difficile
- Norovirus
- MRSA
- Influenza
- Shingles

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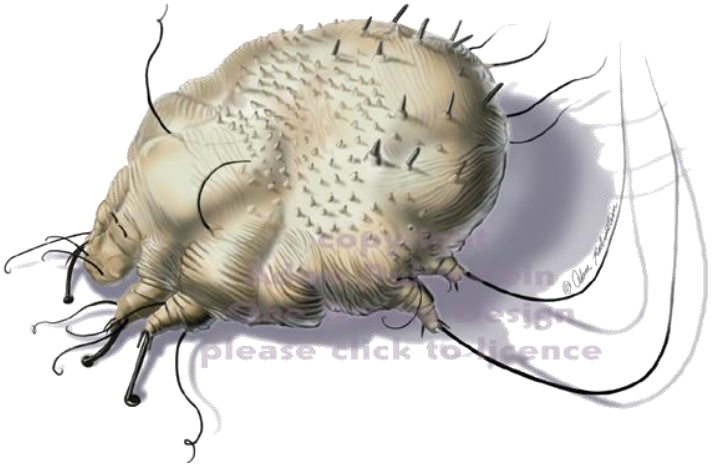

Scabies

- Scabies is a very contagious skin condition spread by skin to skin contact.
- Caused by tiny mites that burrow into the skin causing an allergic response. Burrow marks can be seen on the skin.
- More common in young children, older people and the immune compromised.

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Scabies – Symptoms & Treatment

- Symptoms are intense itching especially when warm.
- Takes several weeks for symptoms to appear.
- Starts as tiny red spots – scratching can cause a crusty sores to develop.

Treatment – cover whole body in a cream eg permethrin - leave for 12 hours and wash off.

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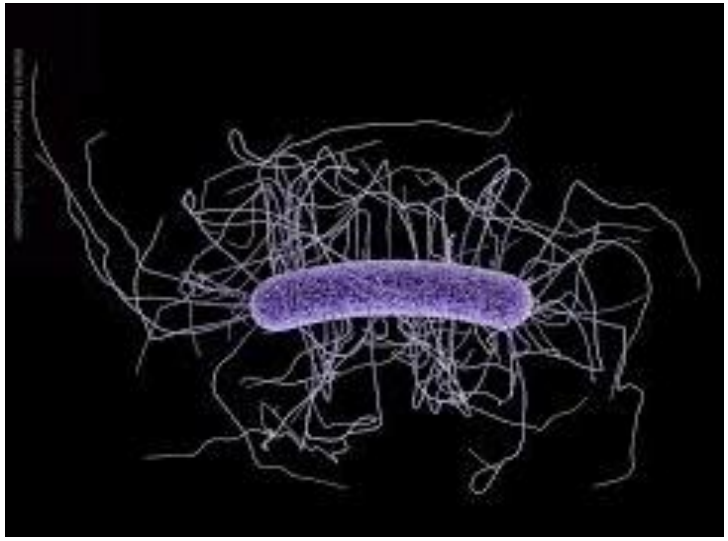

Clostridium difficile

- C diff is a bacteria found in the gut and is usually kept in balance by the other bacteria.
- Treatments which affect this balance allow C diff to multiply and produce toxins. This causes the illness.
- C diff is spread by skin contact, from surfaces and from the air.

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Clostridium difficile

- Symptoms & Treatment

- Symptoms can be from mild to severe with foul smelling watery diarrhoea, abdominal cramps, high temp, nausea.
- Not easily spread to healthy people but older or immune suppressed more susceptible.

Treatment – **plenty of fluid** and food that will encourage gut flora. In severe cases specific antibiotics used.

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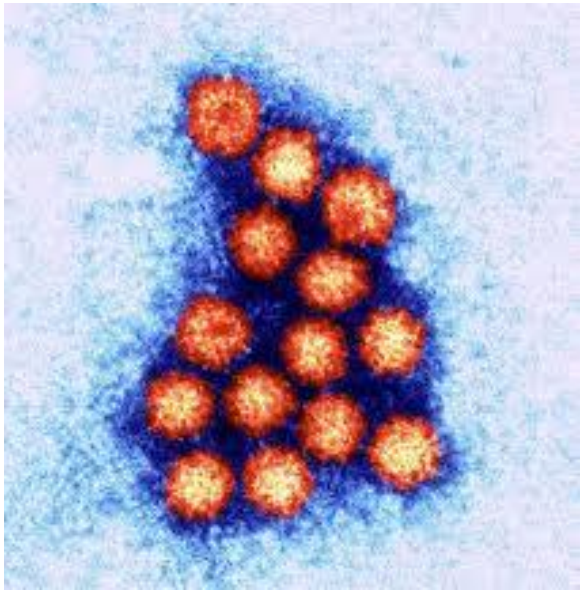
Norovirus



- Norovirus is the most common cause of diarrhoea and vomiting in the UK.
- Often known as the ‘winter vomiting bug’.
- Norovirus is highly contagious and is spread by contact with an infected person or contaminated surfaces or objects.
- Consumption of contaminated food or water.

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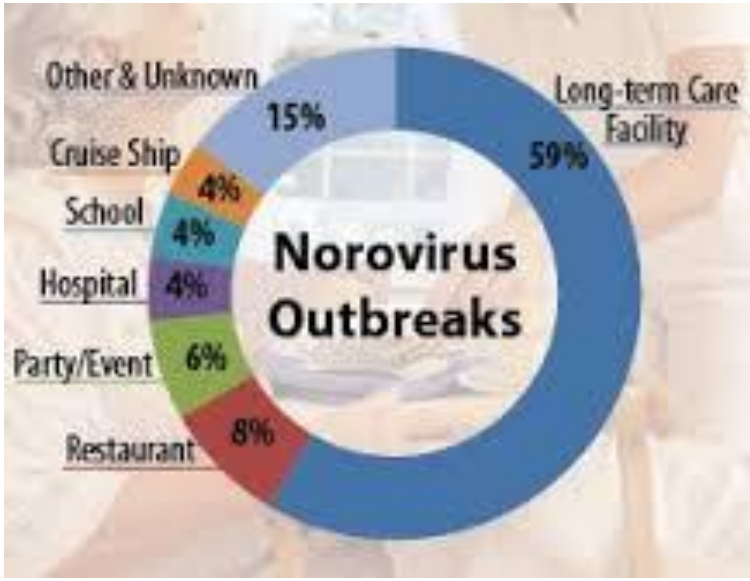
Norovirus - Symptoms & Treatment



- The symptoms appear after 1-2 days after infection
- Sudden onset of projectile vomiting
- Watery diarrhoea and stomach cramps.
- Usually lasts 24 – 48 hours
- Infected residents should be isolated

No treatment – drink plenty of fluids to avoid dehydration

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MRSA

- Meticillin-resistant Staphylococcus aureus.
- Staph aureus is a bacteria commonly carried on the skin, inside nose, throat and normally does not cause any problems.
- MRSA is the Staph aureus that has become resistant to many antibiotics.
- If MRSA gets into a wound it can cause an infection which is very difficult to treat.

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MRSA - Symptoms & Treatment

- Normally the first sign is an infected wound that does not clear up even when antibiotics are given.
- Patients can be routinely screened before going into hospital for surgery.

If MRSA is found either disinfectant on the skin or nasal cream applied for 5 days before hospitalisation.

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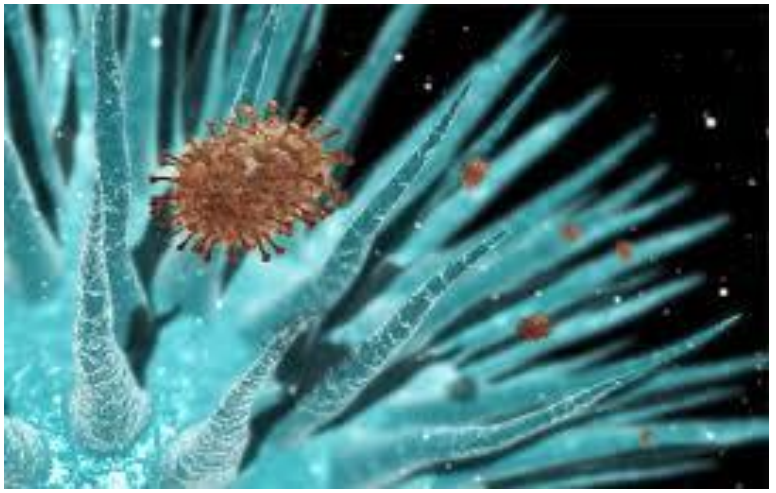
Influenza (flu)



- Flu is a common viral illness which causes respiratory tract symptoms and then develops into a systemic illness.
- Flu is spread through air droplets ie coughing and sneezing.
- Most at risk are over 65’s, young children, pregnant woman and those with respiratory disease eg asthma, bronchitis etc

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Influenza -Symptoms & Treatment

- Flu is virulent (ie severe) and comes on fast.
- High temperature and a dry chesty cough and other cold like symptoms.
- Feeling very tired, aches and pains in joints and muscles.
- **Cough Etiquette!**

The best treatment is bed rest, plenty of fluid and pain killers if necessary.

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Shingles

- Is caused by the virus that causes chicken pox (Varicella Zoster).
- The virus remains dormant in the nerves but when the immune system is lowered the virus can be reactivated.
- You can not catch Shingles but you can catch Chicken Pox from someone with Shingles.

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Shingles - Symptoms & Treatment

- Shingles produces a very painful rash that develops into itchy blisters. Lasts 2-4 weeks
- Only affects I side of the body. Only affects a part of the body

Treatment: Cover the rash. Take painkillers. If severe anti viral drugs will be given. Vaccine given to over 70 year olds.

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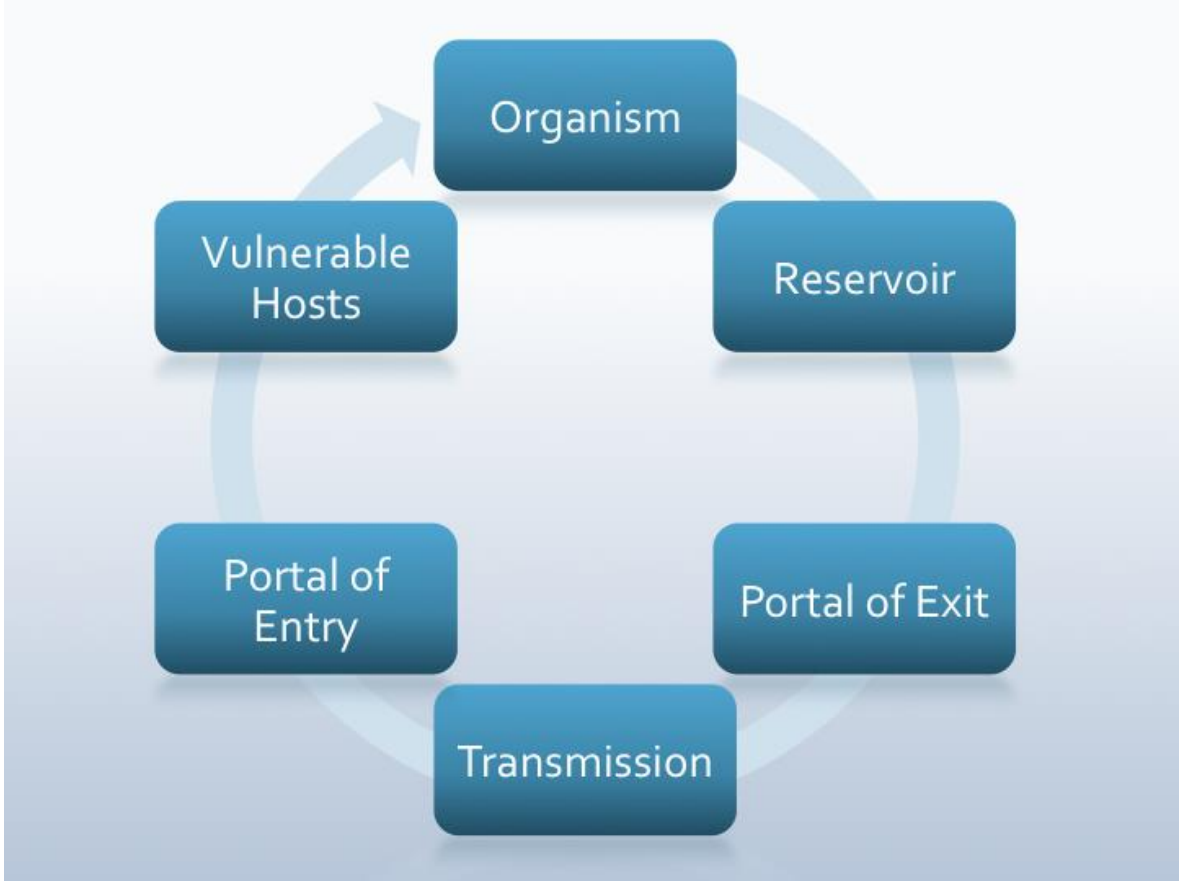
Activity 1

Fill in the Chain of Infection for Influenza



Standard Infection Prevention and Control Precautions

- Handwashing and personal cleanliness
- PPE
- Catheter care
- Handling waste
- Handling linen
- Contaminated sharps and injuries
- Dealing with blood spills
- Cleaning

Hand Hygiene

- Liquid soap (single use pump action liquid soap or cartridge/pouch dispensed liquid soap)
- Supply of paper towels – are they stored correctly?
- Lidded foot operated domestic waste bin lined with appropriate colour bin liner (black or white)

All of the above also in residents rooms/en-suite/bathrooms to ensure good hand hygiene is maintained at point of care.

Remember

- Bare below the elbows …..
  - Don’t wear stoned rings or wrist watches
  - Don’t have false nails or nail varnish
- Always wash hands after removing gloves
- Apply hand cream when possible

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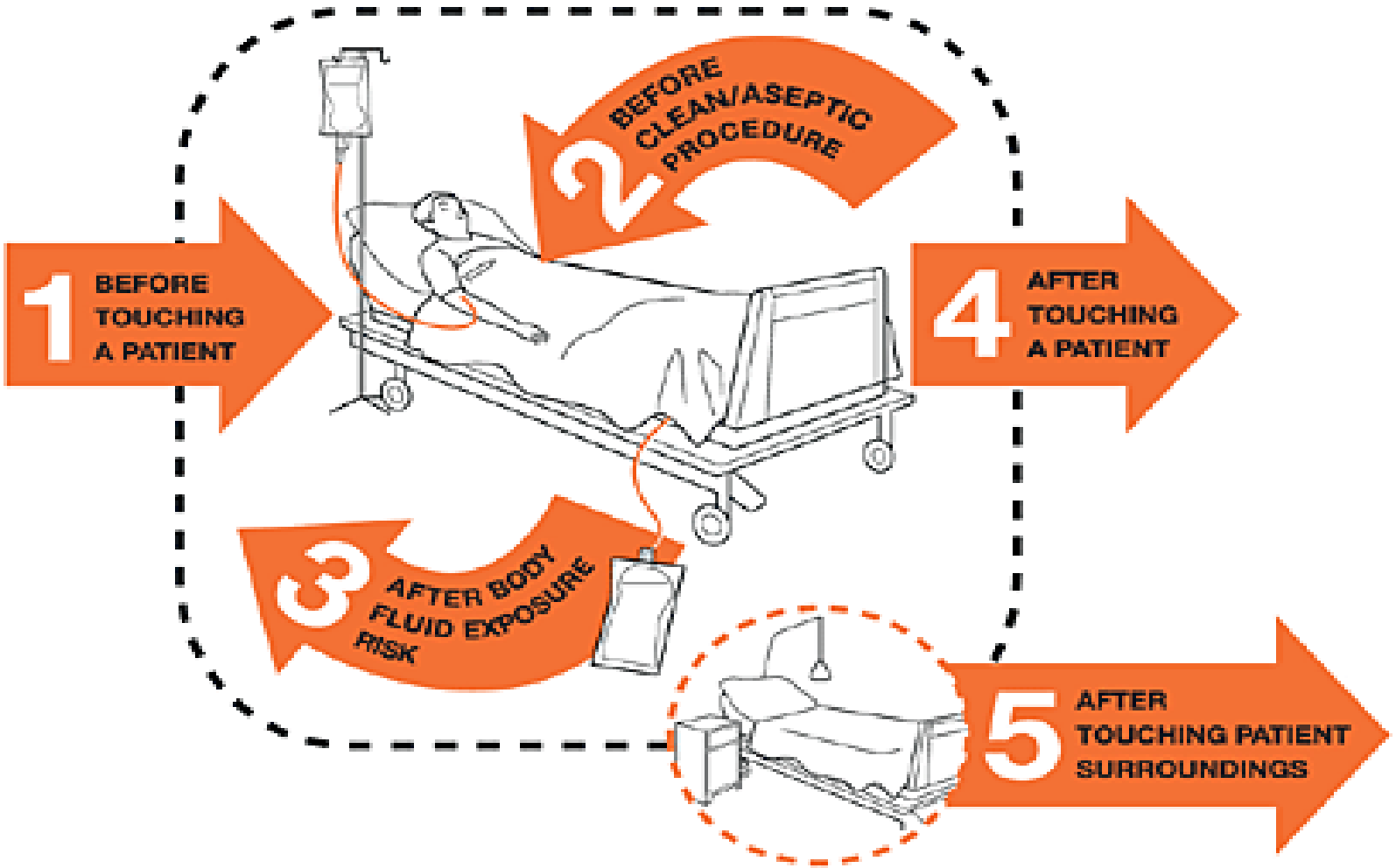
Five Moments of Hand Hygiene



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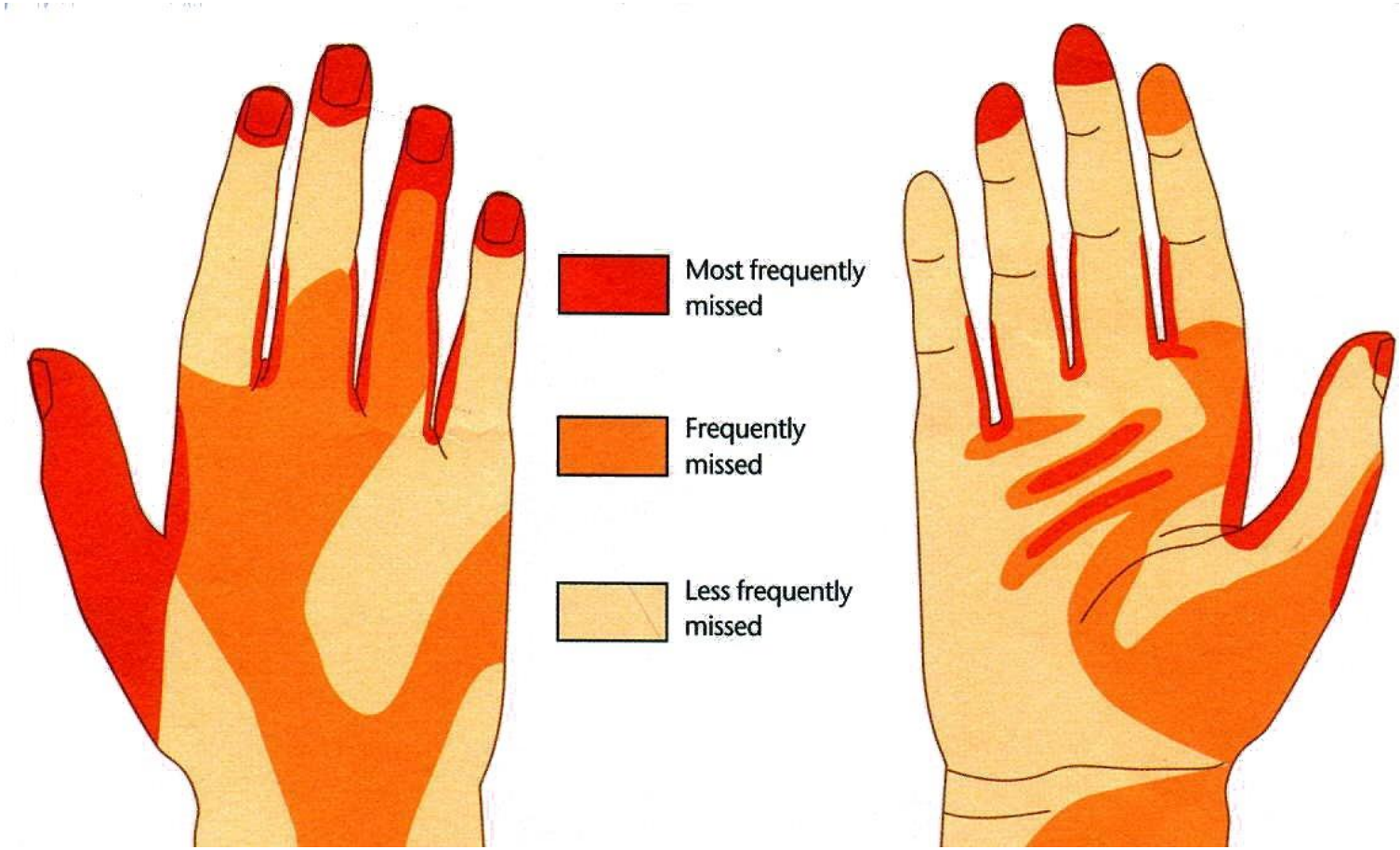
Hand Decontamination Areas Missed



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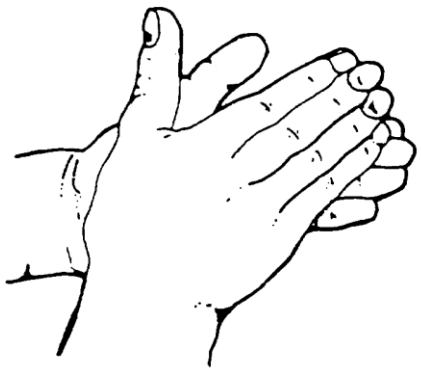
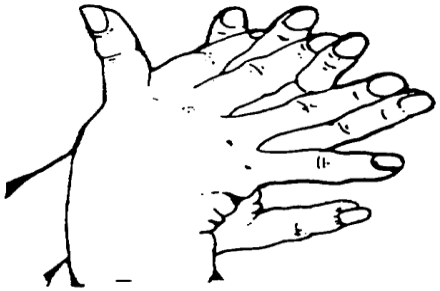
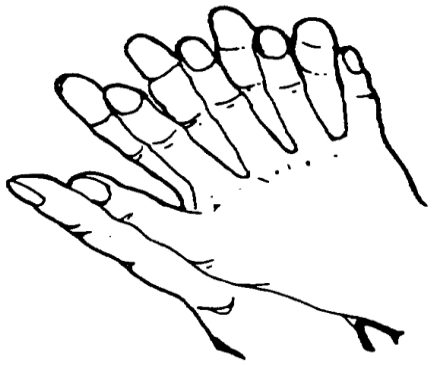
Hand wash technique



1. Palm to palm

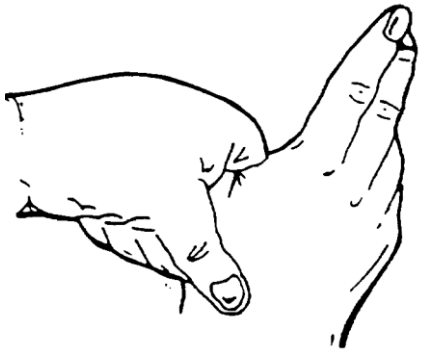


2. Right palm over left dorsum and left palm over right dorsum

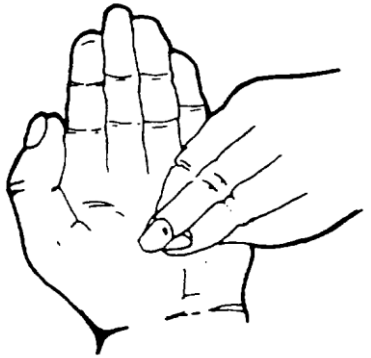


3. Palm to palm fingers interlaced

4. Backs of fingers to opposing palms with fingers interlocked



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



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

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Using Hand Gel

- Very effective on clean hands
- Not effective on spores
- Not effective on virus
- Used well it will help you minimise the risk of infection
- Incorrect use or storage may put you and your residents at risk.
- Know when and how to use it.

Personal Protective Equipment

- Gloves and Aprons
- Adequate supplies
- Easily accessed by all staff at all times

PPE Located in appropriate places – NOT above or in close proximity to toilets or sinks this increases the risk of contamination from aerosol splash and spray.

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Personal protective equipment: gloves and apron

- Must be worn when there is a risk of exposure to blood and body fluids and for close patient contact and bed making!
- Must be synthetic and single use
- Gloves should be discarded after each care activity for which they were worn and before contact with other items such as door handles, curtains, telephones and pens!
- Hands must be decontaminated after glove use…. WHY?
- Aprons must be worn and are a single use item!
- Disposable gloves and aprons protect both the care worker and the resident from the risks of cross-infection

Other factors

Waste – Clean lidded foot operated bins with colour coded bags

Linen - Dirty laundry must not be mixed with clean items

Sharps – You are responsible for the disposal of the sharp you use

Spills of blood – Do you have a spill kit?

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Cleaning commodes

https://www.youtube.com/watch?v=FjQL_zPGhjM

Personal Health and Hygiene

- Report illness and chronic skin problems.
- Personal hygiene – Shower/bathe daily, clean uniform.
- Keep cuts covered.
- Do not come to work if suffering from diarrhoea and vomiting

Patient encouragement

- Residents should be encouraged to wash their hands after toilet visits and before meals
- Micro organisms can be passed on to everything they touch…hand rail, door handle, walking frame, arm of chair, your helping hand or arm?
- If unable to get to a sink, offer wipes and a towel or other hand cleansing option

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Remember!!!!

You really can make a difference……..

Other's lives are in your hands…..literally!!