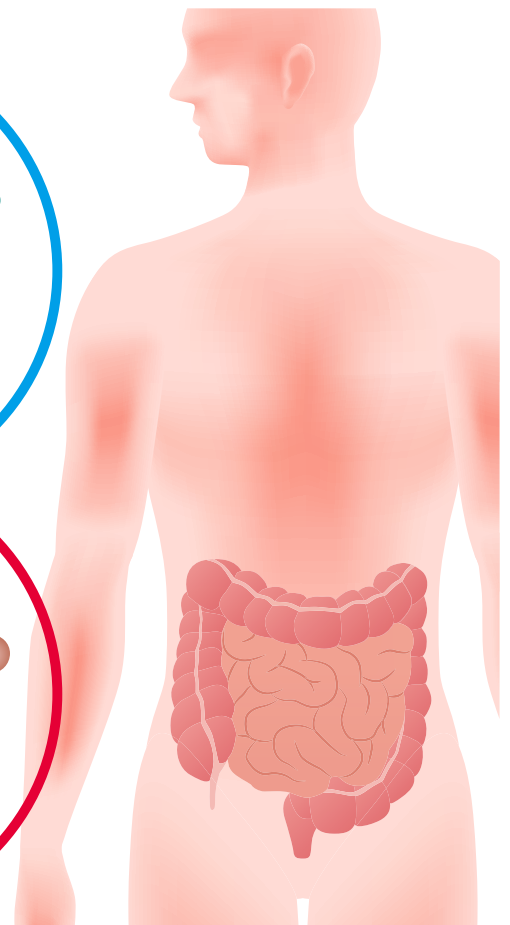
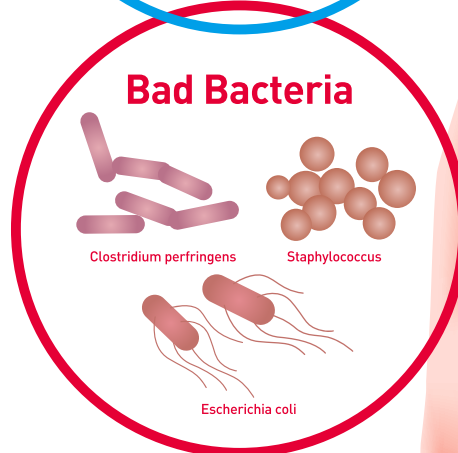
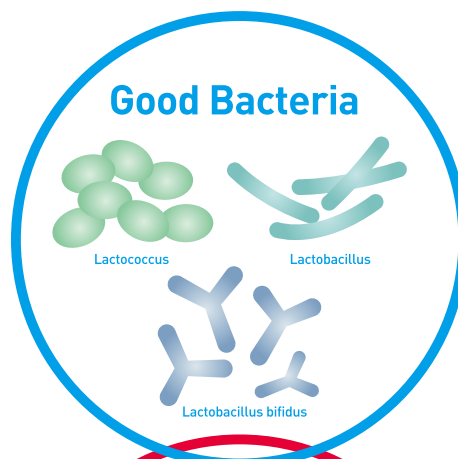


LEARNER TRAINING RESOURCE

Welcome to the unit: **HLTINF001**

Comply with infection prevention and control
policies and procedures



CONTENTS

Copyright.....	2
Poem 'What do you see, Nurses?'.....	4
Microbes and Pathogens.....	5
Follow standard and additional precautions for infection prevention and control.....	6
Hand Hygiene.....	7
Aseptic Technique.....	8
How to handrub? How to handwash? (HHA/WHO).....	9
Drying Hands.....	10
Implement hand care procedures and cover cuts and abrasions.....	11
5 Moments for Hand Hygiene (HHA/WHO).....	12
Follow organisation procedures for choice and use of Personal Protection Equipment.....	13
Use and scope of Personal Protective Equipment.....	13
Follow procedures for respiratory hygiene and cough etiquette.....	15
Follow procedures for environmental cleaning.....	15
Remove spills in accordance with Policies and Procedures of the Organisation.....	15-16
Follow procedures for handling, transporting and processing linen.....	17
Follow procedures for disposal of contaminated waste.....	17
Follow procedures for handling and cleaning client equipment.....	18
Identify and respond to situations where additional precautions may be required.....	19
Identify infection hazards associated with own role and work environment.....	20
Identify own areas of responsibility in relation to infection prevention and control.....	21
Assess risk by determining the likelihood and severity of harm from identified hazards.....	22
Document and report activities and tasks that put self and others at risk.....	30
Identify appropriate control measures to minimise risk.....	31
Follow protocols for care after exposure to blood or other body fluids as required.....	32
Place appropriate signs when and where appropriate.....	32
Minimise contamination of materials, equipment and instruments.....	33
Identify, separate and maintain clean and contaminated zones.....	33
Confine records, materials and medicaments to a well-designated clean zone.....	33
Confine contaminated instruments and equipment to a well-designated zone.....	33
Appendix 1 B1.15 Respiratory Hygiene and Cough Etiquette.....	34
References.....	35

Copyright©SUEE: Veronica Peterson / Susan Isbister [2006 - 2018].

This work is copyrighted. The owners retain all copyright in this work. Apart from any use as expressly permitted under the Copyright Act 1968 (Cth), no part may be reproduced, copied, or disseminated by any process, electronic or otherwise, in any form, without the prior written permission from the copyright owners.

Requests and inquiries concerning reproduction and rights should be addressed to SUEE (ABN 65 804 545 118), 16 Sheltie Place, Nabitac NSW 2312 Australia or email to suee@suee.com.au

VERSION CONTROL

VERSION	ORIGINAL	1
DATE	VP MAY16	



Disclaimer: Information is resourced for student study only purposes, is contained within the 'References' and is believed to be accurate and reliable. SUVEE accepts no responsibility for any errors or omissions, website and/or links from websites accessed for information. Developers do not accept any liability for any loss incurred by any person as a result of relying on the information contained in this document. The information is provided on the basis that all persons accessing the contained information and assessment tools takes responsibility for validating and assessing the relevance and accuracy of the materials.

Authors: Susan Isbister: Registered Nurse, Post Graduate Critical Care Certificate, Certificate IV in Aged Care, Certificate IV Training and Assessing, Diploma of Community Services Co-ordination.

Veronica Peterson: Certificate III and Certificate IV in Aged Care, Certificate IV Training and Assessing, Certificate IV Frontline Management, Diploma Community Services Co-ordination, Diploma of Vocational Education and Training, Diploma of Training Design and Development.

Learner Package: This unit is from the CHC Community Services Training Package and is a component of a nationally recognised qualification. The learner's package contained within includes the essential knowledge and assessment tools contributing to evidence required by the student and trainer/assessor towards gaining a satisfactory result in the theory component of this unit. This training and assessment resource has been developed and structured with a flexible approach to ensure user-friendly comprehension for the external student ease of use and understanding i.e. traineeships, as well as classroom face-to-face facilitation.

Assessment Tools: These are designed to address areas as outlined in the Training Package Unit of Competence Elements and Performance Criteria, Foundation Skills, Performance Evidence, Knowledge Evidence, Skills to be demonstrated and expected industry standards and codes of practice.

It is at the discretion of the facilitator and assessor to ensure provision of enough evidence of competency to meet training package requirements.

Application: This unit describes the skills and knowledge required to follow organisational infection prevention and control procedures, including implementing standard and transmission-based precautions and responding to infection risks.

This unit applies to individuals working in health and direct client care contexts.

The skills in this unit must be applied in accordance with Commonwealth and State/Territory legislation, Australian/New Zealand standards and industry codes of practice.

Elements:

1. Follow standard and additional precautions for infection prevention and control
2. Identify infection hazards and assess risk
3. Follow procedures for managing risks associated with specific hazards

Assessment Conditions:

Skills must have been demonstrated in the workplace with the addition of simulations and scenarios where the full range of contexts and situations have not been provided in the workplace or may occur rarely.

The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - organisational infection prevention and control guidelines
 - personal protective equipment
 - hand hygiene facilities and equipment
 - medical or client care equipment relevant to the workplace
 - clinical and other waste and waste disposal equipment
 - areas for cleaning
 - equipment for cleaning, including sterilised sharps if relevant to role
- modelling of industry operating conditions, including integration of problem solving activities to which the candidate responds



What Do You See, Nurses?

(Original Author believed to be an elderly lady who died in a Geriatric ward near Dundee Scotland)

What do you see, nurses, what do you see?
What are you thinking when you are looking at me?
A crabbit old woman, not very wise,
Uncertain of habit, with faraway eyes,
Who dribbles her food and makes no reply,
When you say in a loud voice – “I do wish you’d try.”
Who seems not to notice the things that you do,
And for ever is losing a stocking or shoe.
Who unresisting or not, lets you do as you will
With bathing or feeding, the long day to fill.

Is that what you are thinking, is that what you see?
Then open your eyes, nurse, you’re not looking at me.
I’ll tell you who I am as I sit here so still,
As I use at your bidding, as I eat at your will,
I’m a small child of 10 with a father and mother,
Brothers and sisters who love one another.
A young girl of 16 with wings on her feet
Dreaming that soon now a lover she’ll meet.
A bride at 20 – my heart gives a leap,
Remembering the vows that I promised to keep.

At 25 now I have young of my own
Who need me to build a secure, happy home.
A woman of 30 my young now grow fast,
Bound to each other with ties that should last.
At 40 my young sons have grown and are gone,
But my man’s beside me to see I don’t mourn.
At 50, once more babies play ‘round my knee,
Again we know children, my loved one and me.
Dark days are upon me, my husband is dead.
I look at the future, I shudder with dread,
For my young are all rearing young of their own
And I think of the years and the love that I’ve known,
I’m an old woman now and nature is cruel –
‘Tis her jest to make old age to look like a fool.

The body it crumbles, grace and vigour depart.
There is now a stone where I once had a heart,
But inside this old carcass a young girl still dwells,
And now and again my battered heart swells.
I remember the joys, I remember the pain,
And I’m loving and living life over again.
I think of the years all too few – gone too fast,
And I accept the stark fact that nothing can last.
So open your eyes, nurse, open and see,
Not a crabbit old woman, look closer – see Me.....





What is Infection?

Infection is where, for example, bacteria, virus, protozoa, fungi, etc, enters a person's body multiplying, colonising and attaching to the body cells. This invasion may overcome the body's natural immune system defences causing the person to become ill.

Some infections are life threatening, particularly in those persons who are more susceptible by having a low resistance to infection, for example, a person on chemotherapy treatment.

Risk of Contracting an Infection

Those people who have the pathogens on the body but do not become ill or show signs of disease are known as carriers. The pathogens on carriers are not harmful to them but may be harmful to others, especially vulnerable people who are frail, living with disability or have poor immune systems.

Those care recipients living in group homes or residential settings are at a higher risk of contracting infections due to the high level of people movement in their living environment.

Many infections pose serious risk to care recipients, for example, upper respiratory tract infections (urti), pneumonia, influenza, etc.

Types of Infection

- local, confined to one area e.g. skin abscesses
- generalised e.g. pneumonia (in the lungs)
- systemic, widespread through the blood stream

Microbes and Pathogens

Some **microbes** are harmful and can cause infections. They are called **pathogens**. Pathogens grow best:

- at body temperature
- where light is limited
- where there is moisture
- where there is a food supply
- where oxygen needs are met

Some pathogens attack and destroy the cells they invade, others produce poison called toxins that harm the body and others cause sensitivity as in allergic reactions.

A microorganism is a living entity that can only be seen through a microscope and is not necessarily a pathogen.

Pathogens are **microbes** that can cause, or do cause disease, for example bacteria, virus, parasites and fungi.

Some organisms are not harmful and they may actually assist the body to function effectively, where others will cause disease.





- attendance to in-house education on the workplace infection prevention and control practices
- infection control standard precaution measures and when additional precautionary measures are required to be taken and/or implemented
- application of preventative measures through a risk management approach to infection prevention in all their work practices

Follow standard and additional precautions for infection prevention and control.

Follow hand hygiene practices in accordance with organisations policies and procedures.

Underpinning Principles of Infection Control

Care service providers will implement a risk management approach throughout the care services they provide. This approach will ensure all care support workers have an awareness and basic understanding of infection prevention and control.

Each organisation will have written into their policies and procedures how to prevent and/or minimise the risk of transmission of infectious diseases.

Care support workers are vulnerable as they are often working with care recipients who have transmittable infectious diseases.

Care service providers underpinning principles of infection control to protect support workers and the care recipients will include, for example, Policies and Procedures outlining acceptable work practices, i.e.

- assuming everyone and every surface the support worker will come in contact with is contaminated or infectious
- appropriate cleaning techniques and equipment to be used, for example, colour coded equipment for use in specific areas only
- preventative measures to be taken by following standard precautions, for example, hand hygiene applied before, during and after all procedures, wearing task appropriate personal protective equipment
- precautionary measures to be utilised, for example, notifying care recipients' Doctor, Department of Health, etc

Care support workers are required to understand and continually educate themselves on, for example, the:

- chain of infection and opportunities to interrupt the infection process
- different modes of transmission of infection they will be exposed to
- identification and reporting of any potential risk of infection immediately to a supervisor



Do not be guilty of being the missing link in the team. Follow hand hygiene practices in accordance with your workplace policies and procedures.

Standard Universal Precautions

Involves the use of safe work practices required to achieve a basic level of infection control to stop the spread of infectious agents. These practices are recommended for the treatment and care of all care recipients regardless of where their individual living environment may be, for example:

- group home accommodation
- residential supported living
- community care
- hospital

Standard precautions involve:

- hand hygiene practices i.e. performing HH before, during and after all procedures
- applying aseptic non-touch techniques (ANTT)
- respiratory hygiene and cough etiquette
- the use of task appropriate personal protective equipment



- regular environmental cleaning and managing spills
- appropriate handling of food, waste and linen
- safe disposal of sharps
- correct reprocessing of reusable medical equipment and instruments

(Based on material provided by the National Health and Medical Research Council)

Standard precautions apply to all support workers and those persons receiving care regardless of their medical diagnosis or presumed infectious status. If care support workers take the preventative approach that everyone is potentially infectious and applies standard precautions to all their work practices they will, for example:

- minimise cross-contamination and maintain their personal safety and the safety of others who are dependent upon them for care
- break the chain of infection
- reduce the risk of transmission of micro-organisms from both recognised and unrecognised sources of infection.

Standard precautions apply to:

- all body substances, secretions and excretions regardless of whether or not they contain visible blood
- non-intact skin
- mucous membranes, for example, mouth, nasal passages, throat, stomach, eyelids, anus or vulva.

All **blood** and **body substances** are considered to be potentially infectious. Support workers need to be aware this includes, for example:

- blood, including dried blood
- vomitus
- sputum
- semen
- vaginal secretions
- urine
- faeces
- body tissue
- cerebrospinal fluid from around the brain and spinal chord
- amniotic fluid surrounding a foetus
- synovial fluid that surrounds a joint, etc.

Aseptic hand washing is required even after glove use.



Protective barriers are an essential strategy for the minimisation of the transmission of infections including the use of aseptic techniques to minimise cross-contamination. All surface areas, hands and equipment used in care support environments will become contaminated requiring aseptic techniques to be implemented.

It is important for the support worker to understand that their work practices must also include a preventative approach to infection when handling the care recipients' personal belongings and their immediate surroundings. These areas are also contaminated, for example:

- bed linens, pillows, towels, bed rails, bedside tables, call buttons, remote controls, light switches, books, mobility aids, chairs, door handles, dentures, etc.

Hand Hygiene (HH)

Includes such procedures as hand washing with warm water and soap or the use of alcohol based preparations in specific situations where waterless hand hygiene is acceptable practice.

For the support worker to implement effective hand hygiene it is required to be performed consistently before, during and after all contact with individual care recipients, their environments, equipment utilised, living and people traffic areas.

Hand washing is recommended to be performed effectively and aseptically for a period of **20-60 seconds**. Obviously, extra time will be required for visibly soiled hands. Hand washing ideally will be performed, for example, but is not limited to:

- when hands are visibly soiled
- immediately after removing gloves
- after toileting self or care recipients, changing incontinence aids
- before and after any contact with your mouth, mucous membranes, non-intact skin, eating, drinking, smoking, application of a lip balm, etc
- after exposure to any type of contaminants
- upon entering the work place, commencement and ending of each shift, before leaving the building



- after picking items up off the floor
- before and after handling or consuming food
- after using and disposing of a tissue
- after coughing or sneezing
- before handling a care recipient's food or drink
- after handling care recipient's belongings
- after touching inanimate objects in a care recipients room
- after touching all environmental surfaces
- before and after contact with a peg or catheter tube
- before and after conducting urinalysis, blood glucose levels, peg feeding, stoma care, colostomy care, etc
- after handling raw meat
- assisting a care recipient with medication or application of an ointment or cream
- before, during and after attending wound care
- emptying of drainage bags, urine storage containers, slipper pans, etc
- contact with care recipients with a depressed immune system
- before and after performing oral care i.e. cleaning care recipient's dentures, dental plates, teeth or mouth
- before handling any clean supplies e.g. linen
- immediately after any accidental direct contact with body fluids or blood
- between any contact with individual care recipients, animals (pets as therapy), etc.



Liquid soap is used instead of bar soap to minimise cross contamination and the spread of pathogens.

Aseptic Technique

Is the preventative measures taken to minimise exposure to harmful bacteria and to prevent contamination occurring. The primary goal is to prevent the spread of harmful pathogens that cause infections.

Minor cuts or abrasions can quickly develop infection if support workers do not apply aseptic techniques.

How to Perform Aseptic Hand Washing

Hand hygiene is to be performed before, during and after all procedures regardless whether or not gloves have been worn.



Refer to page 23 of b&w Workbook for correct hand washing procedure to be utilised.

Hand washing **is the single most important procedure for preventing healthcare associated infections.** The frequency and duration of hand washing is dependent upon the nature, intensity, duration and sequence of the work activity.

Aseptic Non Touch Technique (ANTT)

Is a tool for preventing infections in health care and community care settings. Support workers can apply this technique by ensuring they do not directly touch, for example, wounds. By consistently following the workplace Infection Control Policies and Procedures, performing the correct hand hygiene practices and usage of gloves will ensure the support worker is preventing the spread of micro-organisms.

How to Hand Rub



Refer to opposite page 9.

Identifying Poor Hand Hygiene (HH) Practices

It is, unfortunately, a common scenario of poor compliance outcomes for hand hygiene practices in health care settings. Many support service providers have implemented annual hand washing and hand rub technique competencies that all support workers must undertake.

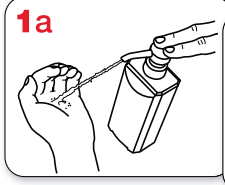
Many support workers and nurses have a range of excuses why non-compliance to hand hygiene standards continues to be an issue. A multitude of excuses and comments are generally made by those who do not comply and are in breach of a Support Service Provider's Policies and Procedures in relation to infection control. Examples include:

- "we do not have time to wash our hands"
- "we are so short staffed today"
- "I keep forgetting"
- "I get dermatitis from the soap"
- "this place does not have enough hand washing bays"
- "I was never told I had to wash my hands that many times"

How to handrub?

WITH ALCOHOL-BASED FORMULATION

1a



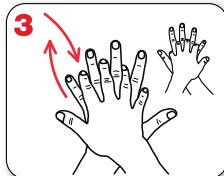
1b



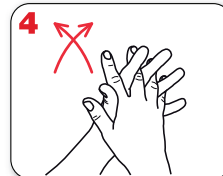
Apply a palmful of the product in a cupped hand and cover all surfaces.



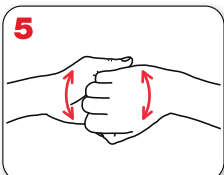
Rub hands palm to palm



right palm over left dorsum with interlaced fingers and vice versa



palm to palm with fingers interlaced



backs of fingers to opposing palms with fingers interlocked



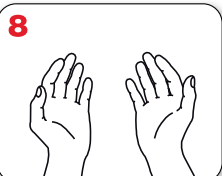
rotational rubbing of left thumb clasped in right palm and vice versa



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



20-30 sec

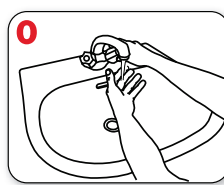


...once dry, your hands are safe.

How to handwash?

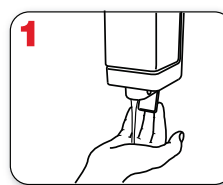
WITH SOAP AND WATER

0

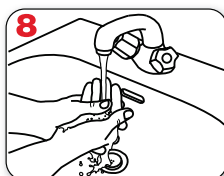


Wet hands with water

1



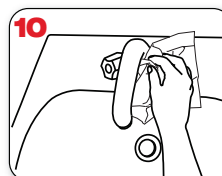
apply enough soap to cover all hand surfaces.



rinse hands with water



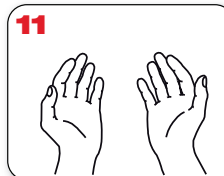
dry thoroughly with a single use towel



use towel to turn off faucet



40-60 sec



...and your hands are safe.



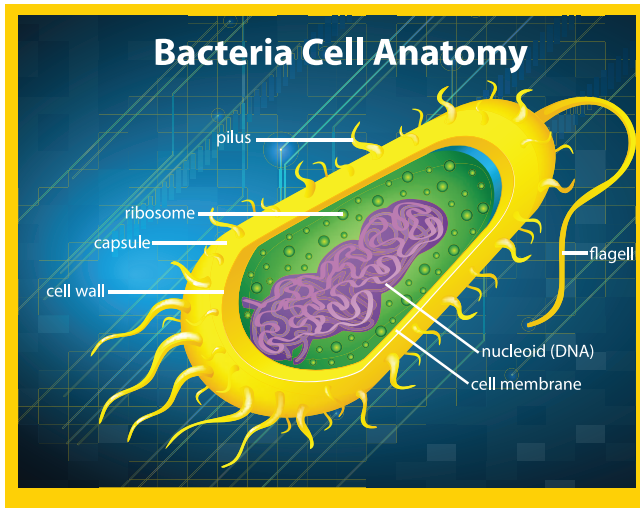
WHO acknowledges the Hôpitaux Universitaires de Genève (HUG), in particular the members of the Infection Control Programme, for their active participation in developing this material.



October 2006, version 1.

Copied with kind permission from: Project Officer Hand Hygiene Australia
 'Based on the 'How to Handwash', URL: http://www.who.int/gpsc/5may/How_To_HandWash_Poster.pdf,
 and 'How to Handrub', URL: http://www.who.int/gpsc/5may/How_To_HandRub_Poster.pdf © World Health Organization 2009. All rights reserved.





There is no excuse not to maintain appropriate hand hygiene practices in a care support environment when alcohol-based hand rubs are so readily available, accessible and hand washing bays are strategically placed within buildings.

Benefits of ABHR

- It is efficient and less time consuming to perform HH. Support workers can be applying ABHR on the move
- Cost effective for an organisation e.g. less water usage, purchase of paper towel and liquid soap including dispensers
- Less mess e.g. less paper towel waste and disposal, soap scum, areas for pathogens to multiply
- Easier accessibility e.g. where appropriate ABHR container in each care recipient room, corridors, etc
- Can be used a multitude of times before a hand wash with soap and water is required.

Pre-Surgical Hand Preparations

This is a lengthy process taking generally 3-5 minutes, with the purpose of removing any microorganisms from the hands, nails and forearms. Before assisting in any invasive surgical procedure a pre-surgical hand wash is required. It includes, for example:

- removing all jewellery
- using an antimicrobial soap
- thorough scrubbing of all sides of each finger including the nails, front and back of each hand, both arms up close to the elbows
- timing the scrubbing process for each area
- holding the hands higher than the elbows at all times
- rinsing in one direction only i.e. fingers to elbow direction
- drying with sterile towels only

Drying Hands

It is essential that support workers understand the process of drying hands appropriately is also an essential component of hand hygiene.

Wet hands provide the perfect environment and opportunity for:

- pathogens to multiply rapidly
- the skin integrity to break down quickly
- an entry point for the chain of infection to commence

The use of paper towelling disposed of correctly in an enclosed non-touch receptacle efficiently minimises the risk of cross-contamination. Support workers require ongoing education and annual competencies to ensure the correct hand washing and drying techniques are being applied.

Many studies have been conducted in Australia and overseas comparing the different hand drying techniques, in particular, paper towel versus warm air dryers.

Many of the studies agreed that the paper towel dried hands more efficiently removed bacteria where the air dryers spread bacteria in a confined space, for example, a public toilet.

In 2005, in a study (conducted by TUV Product and Umwelt) different hand drying methods were evaluated. The following changes in the bacterial count after drying the hands were observed.

DRYING METHOD	EFFECT ON BACTERIAL COUNT
Paper towels	Decrease of 24%
Hot-air dryer	Increase of 117%

Clinical moments when hand hygiene should be performed with soap and water rather than alcohol-based hand rub.

When hands are visibly soiled, they should always be washed with warm water and soap to remove all particles.

ABHR containing 60-90% alcohol is recognised as the preferred method for hand hygiene as it is effective against the majority of pathogens. However, ABHR is virtually non-effective against highly resistant bacterial spores or protozoan oocysts (cyst containing a zygote formed by a parasitic protozoan such as the malaria parasite).

Washing hands with soap and water is preferred in this situation because it is the best method of physically removing spores from the hands.

A common highly contagious virus which most often surfaces during the winter months but is also known to regularly circulate throughout any month during a year in care supported environments is **Norovirus**.



Conflicting studies have emerged to the effectiveness of ABHR alone as a preventative and protective measure. To reduce the risk of catching or transmitting **Norovirus** it is suggested by several health authorities that hand washing with soap and water when hands are visibly or accidentally soiled, followed with ABHR, is effective.

Implement hand care procedures and cover cuts and abrasions.



Open wounds supply an entry point for harmful microorganisms to enter the body and the chain of infection to continue.

Hand Care - Intact Skin

Intact skin i.e. skin without abrasions, cuts or lesions is one of the body's own natural barriers and defences to infection and prevention of infection.

The support worker has a '**Duty of Care**' to themselves to minimise the risk of exposure to harmful **pathogens** by reporting any non-intact skin before commencement of a shift to the Registered Nurse on duty.

Ideally cuts and abrasions on exposed skin are covered with a water resistant dressing which should be changed as necessary or when the dressing becomes visibly soiled.

Care support workers hands can be protected against chaffing or skin integrity decline by the regular use of non-oil based moisturising creams or lotions. Support Service Providers supply these at hand washing bays and encourage all staff to use them regularly.

Also, the use of an oil-containing lotion or a barrier cream three times a shift can substantially protect the hands of vulnerable healthcare workers against drying and chemical irritation, preventing skin breakdown (75) (HH Australia).

Hand care may include, but is not limited to, for example:

- wearing single use disposable gloves
- suitable water based hand creams that are registered on the Australian Register of Therapeutic Goods. It is recommended that support workers

use the supplied moisturiser a minimum of three times per shift to maintain skin integrity

- using either ABHR or warm water and soap for hand washing before, during and after all procedures
- drying hands thoroughly after hand washing with water using paper towel to dry between finger areas
- wearing heavy duty utility gloves when handling irritant chemicals

Fingernails and Nail Care

Numerous studies have documented that subungual area (under the nail) of the hand harbour high concentrations of bacteria.

Fingernails, both long and short, combined with chipped nail polish harbour and provide the perfect environment for potentially harmful **pathogens** to hide and multiply. False nails, nail extenders, sharp or naturally long fingernails will puncture through gloves exposing the hand to the environment and placing the support worker at risk of exposure to harmful contaminants.

Support service providers will ideally have written into the organisations Infection Control Policies and Procedures the acceptable standard for length of nails.

Those support workers who have direct contact with care recipients are placing the recipients at risk of injury, for example, skin tears, from wearing long or false nails to work which then leaves the recipient vulnerable to infection thus compromising their health.

Nails must be kept short and clean. Artificial nails have been implicated in a number of outbreaks of health care associated infections (HCAI's) and must not be worn by any support worker with direct contact with a care recipient.

Jewellery

Several studies have shown that skin underneath rings on hands are more heavily colonised with pathogens than comparable areas of skin on fingers without rings.

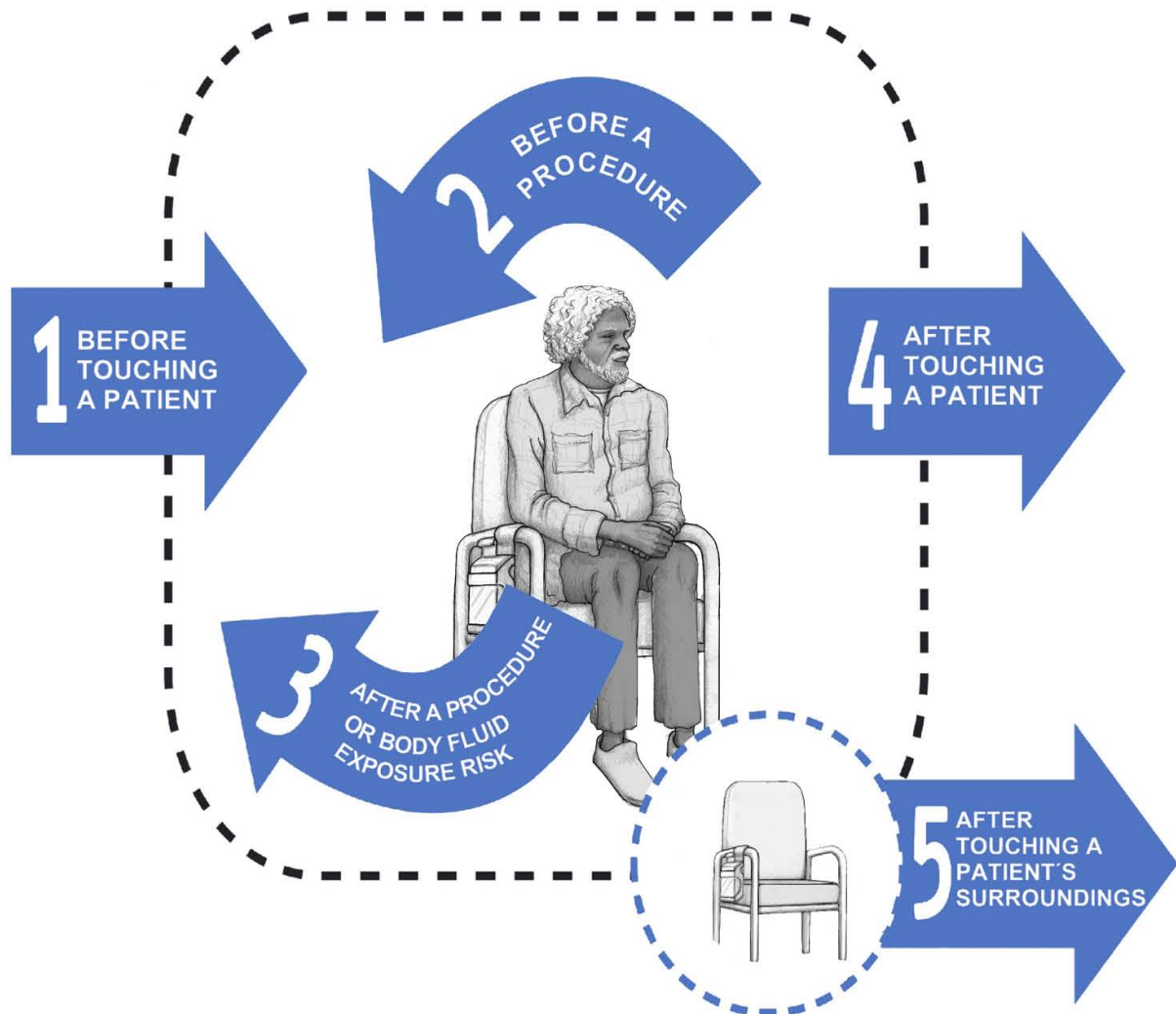
Minimal jewellery is recommended in support service environments such as a plain flat band only. Bracelets, wrist watches and rings with stones or ridges should never be worn when providing clinical care. Jewellery must never interfere with the support worker performing effective hand hygiene.

Care support service providers workplace hand hygiene infection prevention policies, procedures and education will include a section on appropriate and acceptable jewellery to be worn in the workplace.

Common sense must prevail with support workers. If a piece of jewellery is valued highly, the question must be asked "why would you wear it in an environment where it risks being exposed to contamination, harbour harmful pathogens and potentially risk bringing those harmful pathogens home to loved ones?"



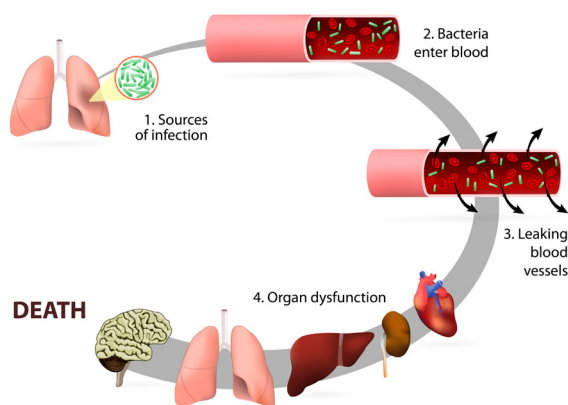
5 Moments for HAND HYGIENE



1 BEFORE TOUCHING A PATIENT	When: Clean your hands before touching a patient and their immediate surroundings. Why: To protect the patient against acquiring harmful germs from the hands of the HCW.
2 BEFORE A PROCEDURE	When: Clean your hands immediately before a procedure. Why: To protect the patient from harmful germs (including their own) from entering their body during a procedure.
3 AFTER A PROCEDURE OR BODY FLUID EXPOSURE RISK	When: Clean your hands immediately after a procedure or body fluid exposure risk. Why: To protect the HCW and the healthcare surroundings from harmful patient germs.
4 AFTER TOUCHING A PATIENT	When: Clean your hands after touching a patient and their immediate surroundings. Why: To protect the HCW and the healthcare surroundings from harmful patient germs.
5 AFTER TOUCHING A PATIENT'S SURROUNDINGS	When: Clean your hands after touching any objects in a patient's surroundings when the patient has not been touched. Why: To protect the HCW and the healthcare surroundings from harmful patient germs.

SAFETY MATTERS!

Sepsis



Sepsis is a life threatening illness caused by the body responding to an infection.

Complete HHA Online Activity

Hand Hygiene Australia

Online Standard Theory Module

Student Instructions:

- follow the link below to complete Hand Hygiene Australia (HHA) online hand washing questionnaire
- print off the generated HHA Certificate for verification of completion
- present HHA Certificate to your trainer as evidence of completion

<http://www.hha.org.au/LearningPackage/olp-home.aspx>

Follow organisation procedures for choice and use of personal protection equipment.

Personal Protective Equipment (PPE) and clothing utilised in care support services may include for example, but is not limited to:

- standard and extra precaution gowns, waterproof plastic aprons that comply with Australian New Zealand standards

- examination gloves and surgical gloves that comply with current Australian New Zealand standards
- glasses, goggles or face shields
- surgical face masks that comply with current Australian New Zealand standards
- footwear to protect from dropped sharps and other contaminated items, disposable plastic shoe covers, etc.

Use and scope of personal protective equipment.

Before performing any procedure, the support worker is required to be familiar with the workplace Policies and Procedures related to appropriate standards and work practices for infection control.

Consider the risk of exposure, transmission, cross contamination, spillage or soiling that may occur whilst performing individual procedures.

It is preferable to err on the side of caution rather than expose yourself to harmful pathogens. If the support worker ensures their work practices treat every person, surface, piece of equipment and all objects found in the workplace as contaminated, apply effective hand hygiene and wear task appropriate PPE, they will dramatically reduce the risk of becoming contaminated.

Knowledge of the correct sequence for the application and removal of PPE will also contribute to minimising the risk of exposure to harmful microorganisms.

Sequence for Applying PPE involves

1. wash hands
2. mask
3. gown
4. goggles or face shield
5. shoe covers
6. gloves

Sequence for Removing PPE

1. gloves
2. wash hands
3. goggles or face shield
4. mask
5. gown and shoe covers
6. wash hands

Glove Usage and Hand Washing

Hand hygiene is required regardless of whether gloves have been worn or not. As soon as gloves are removed hands are to be washed with:

- warm water and soap if visibly soiled, contact with bacterial spores or protozoan oocysts
- alcohol based hand rub





Perform HH before donning gloves



Perform HH after removing gloves



Gloves must be changed and discarded:

- as soon as they are torn or punctured
- after contact with an individual is complete and before care is provided to another person
- when performing separate procedures on the same care recipient and there is a risk of cross contamination

Disposable gloves are recommended to be worn for two main reasons:

1. to reduce the risk of contamination of support worker's hands with blood and other body fluids
2. to reduce the risk of spreading germs to the environment and transmission from the support worker to the care recipient and vice versa

Gloving

There are two main types of single use gloves worn to protect against microbial contamination i.e. examination and surgical. They may be powdered or unpowdered gloves. Gloves can be made of:

- latex, made from the natural material rubber, are biodegradable and strong
- synthetic rubber (nitrile gloves), for those persons with an allergy to latex, are latex free, very strong and most resistant to punctures
- vinyl, are latex free, looser fitting and for low risk procedures

The efficacy of gloves in preventing contamination of support worker hands and helping to reduce transmission of pathogens in healthcare environments has been confirmed in several clinical studies.

Sourced: <http://www.hha.org.au/About/GloveUsePolicy.aspx>

However, care support workers should not become complacent and think:

- they do not need to perform **hand hygiene** after wearing and removal of gloves
- that gloves provide complete protection against hand contamination
- that pathogens cannot gain access to their hands when they are wearing gloves
- they do not need to change gloves during several procedures provided to the same care recipient
- their hands do not become contaminated from touching surfaces, for example, bedside tables, furnishings, equipment, etc

A third type of specialised glove includes those used in medical procedures for chemotherapy treatments.

The main purpose of wearing gloves during any contact procedure is to reduce the risk of exposure to infectious agents via cross-contamination.

Glove usage is dependent on the type of procedure to be undertaken, where there is a risk of transmission of harmful microorganisms and when coming into contact with, for example:

- blood or other body fluids
- mucous membranes
- non-intact skin
- touching contaminated items

If care support workers are in doubt as to when it is appropriate to use gloves they should treat everyone and every surface as contaminated and apply the same principles as hand hygiene i.e. don PPE gloves before and change when contaminated between body sites during care support activities.



Wearing Gowns and Waterproof Aprons

Wearing the appropriate gown or waterproof apron during care support activities, where there is a risk of soiling of the care support worker's clothing or skin, reduces the risk of transmission via cross-contamination of infectious organisms.

Gowns will be required where an infectious agent has been identified which may be transmitted via contact, airborne or droplet form.

Care recipients with high care needs may be unpredictable, for example, when showering and washing the perineal area they may have no control of their body function and pass faeces or void urine. The support worker wearing the task appropriate PPE to protect against body spills i.e gloves, waterproof apron and shoe covers would be safe in this type of situation.

Wearing Masks and Protective Glasses

Wearing a mask, eye protective glasses or a face shield will protect the support worker's mucous membrane of the eyes, nose and mouth during procedures that are likely to generate droplets, splashes or sprays of blood, body fluids, secretions and excretions.

A mask is required when a care recipient has been diagnosed with an infection that can be transmitted via droplet or airborne routes.

Follow procedures for respiratory hygiene and cough etiquette.

Refer to Appendix 1



FLU
DISEASE



Follow procedures for environmental cleaning.

Remove spills in accordance with the policies and procedures of the organisation.

Colour Coding

Care support service providers, along with healthcare organisations, have infection control guidelines and expected standards written into their individual Policies and Procedures.

Colour coding of cleaning equipment is an essential part of infection control throughout these organisations to minimise cross-contamination from one area to another within the care environment.

All care support workers need to be familiar with, and maintain appropriate use, disposal or cleaning of all equipment that is utilised.

Red/pink cleaning equipment which includes cleaning cloths, mops, buckets, etc, are to be used only in the areas of, for example:

- toilets
- bathrooms
- laundries
- dirty utility rooms

Green cleaning equipment which also includes cleaning clothes, mops and buckets are to be used only in the area of, for example:

- food service areas e.g. kitchenettes
- food preparation areas
- communal dining rooms, etc

Blue cleaning equipment for general cleaning areas are to be used only in the areas of, for example:

- office areas
- nurses stations, etc

Yellow cleaning equipment is for hazardous or infectious areas only, for example:

- any contaminated spills i.e. blood or body fluid spills regardless of the area they may occur

**Complete Activities No. 1,
No. 2 and No. 3**



Spill Kits

Are an essential item for the care support worker to assist in the containment and cleaning of spills of body fluids or blood.

Support service providers and other organisations have readily available the infection control policy and procedure for cleaning contaminated spills i.e. body fluids, clinical waste, etc, either attached to the actual spill kit or stored in a manual close by.

In the event the support worker is confronted with a contaminated spill, they will need to access the work place spill kit for immediate effective containment and identification of handling procedures including task appropriate personal protective equipment.

The spill kit will ideally contain **yellow** colour coded items where available.

Spill kit contents may be inclusive of, but not limited to, for example:

- face shield, mask
- eye goggles
- hazard signage
- yellow bucket
- yellow dust pan and brush
- yellow scraper
- yellow cleaning cloths
- yellow impervious disposable aprons and gowns
- pair of heavy duty reusable gloves
- plastic disposable shoe covers
- container of neutral detergent
- packet of disposable paper towels
- disposable gloves
- yellow hazard bags

Surface Cleaning

Before using any cleaning agents, check and follow the Safety Data Sheet (SDS) for the correct guidelines for chemical use.

Sanitising surfaces is an often overlooked yet critical component of breaking the cycle of infection in health care environments. Modern sanitising methods such as NAV-CO2 have been effective against gastroenteritis, MRSA and influenza.

Use of hydrogen peroxide vapour has been clinically proven to reduce infection rates and risk of acquisition.

Hydrogen peroxide is effective against endospore forming bacteria such as *Clostridium Difficile*, where alcohol has been shown to be ineffective.

Surface cleaning would ideally occur for:

- general cleaning procedures at the start and end of each day
- routine surface cleaning
- managing a blood or body spill

Minimal Touch Surfaces

A detergent solution (diluted as per manufacturer's instructions) is adequate for cleaning general surfaces (e.g. floors, walls), as well as non-patient-care areas (e.g. administrative offices). Damp mopping is preferable to dry mopping for routine cleaning (Andersen et al 2009).

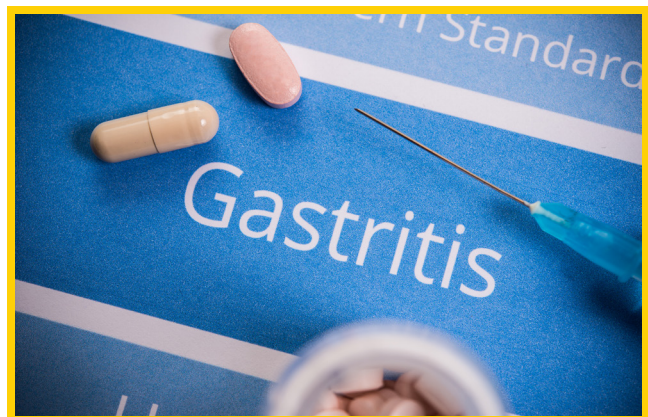
Walls and blinds in care recipient areas should be cleaned with a detergent solution when they are visibly dusty or soiled. Window curtains should be regularly changed in addition to being cleaned when soiled or exposed to multi-resistant organisms (MROs). Sinks and washbasins should be cleaned with a detergent solution on a regular basis as set by facility policy.

Frequently Touched Surfaces

Surfaces that are in close proximity to the patient and frequently touched surfaces in the patient-care areas should be cleaned more frequently than minimal touch surfaces. Examples include doorknobs, bed rails, over-bed tables, light switches, tabletops and wall areas around the toilet in the patient's room.

Frequently touched surfaces can be cleaned with a detergent solution designed for general purpose cleaning. The exact choice of detergent will depend on the nature of the surface and the likely degree of contamination. Detergent-impregnated wipes may be used to clean single pieces of equipment and small surface areas. This method is not normally used for general ward cleaning and should not be considered a replacement for clean cloths and detergent solution.

Source: National Health and Medical Research Council



Blood and Body Substance Spills

In the event of these types of spills occurring the care support workers involved in the management of spills should respond immediately, for example:

- confine and contain spill
- collect the spills kit containing required equipment
- identify the correct procedure to follow
- don the appropriate PPE
- cover the spill with paper towels to absorb the bulk of the blood or body substances
- treat debris as clinical waste
- clean the spill site with, for example, a neutral detergent, disinfectants, etc, and water
- follow the workplace policy and procedure guidelines for contaminated spills

Reprocessing Procedures

Sterilisation

Is a process intended to kill all microorganisms and is the highest level of microbial kill that is possible. Sterilisers may be heat only, steam or a liquid chemical.

Disinfection

Refers to the use of liquid chemicals on surfaces and at room temperature to kill disease causing microorganisms. Disinfection is a less effective process than sterilisation because it does not kill bacterial endospores. It is a process of eliminating harmful pathogens from equipment and instruments.

You may be required to use a disinfectant to clean, for example, wheelchairs, furniture items, BP kits, medication trolley, linen trolley, etc.

The procedure for the use of the disinfectant depends on the type of chemical used. Follow work place procedure and ensure you read the SDS for safety precautions and first aid treatment if required. Protect yourself. Wear task appropriate PPE at all times.

Follow procedures for handling, transporting and processing of linen in a manner that controls the spread of infection.

Handling of Laundry

Workplace policy and procedure will identify the correct method for handling, transporting and processing soiled linen.

Linens soiled with any blood or body fluids are required to be handled cautiously. All body fluids, for example, urine, blood and faeces have airborne particles. To minimise the risk of dispersal of these airborne microorganisms, for example, from used bed linens, they are to be gently folded inward to contain any contaminants before removal from the care recipient's bed.

Depending on the laundering arrangements within each support service for the storage of contaminated items the following may be utilised, for example:

- colour coded linen skips and bags
- dissolvable (water soluble) bags
- yellow hazard bags

Standard procedure for handling soiled linen will include, for example, only:

- select appropriate linen skip
- bring skip to care recipient's room
- don task appropriate PPE if required, for example, gloves and disposable gown if the care recipient is known to be infected with MRSA or other MRO
- place soiled linen in appropriate leak-proof laundry bag e.g. yellow hazard or dissolvable bag
- place bag in appropriate linen skip
- remove linen skip to appropriate storage room
- attend hand hygiene

Follow procedures for disposal of contaminated waste.

Care support services have clean and contaminated zones where equipment is stored. To prevent cross-contamination, no soiled or contaminated items are to be taken into the clean zone areas.

Clean zones include but are not limited to, for example:

- storage areas for materials i.e. linen, dressings, medications, PPE, etc
- sterile storage areas
- administration areas
- processed personal washing of care recipients

Contaminated zones contain and include such items as for example, but are not limited to:

- storage and laundry areas for contaminated items, for example, soiled linen and clothing items
- kitchen areas for return of used crockery, eating utensils, left-over food, etc
- receiving area for contaminated instruments in the instrument reprocessing centre

Waste the support worker may be exposed to, and have to dispose of, may also include and is not limited to:

- clinical waste e.g. discarded sharps, human tissue, laboratory waste and any other waste as specified by the workplace
- related waste e.g. radiographic waste, chemical and amalgam waste, cytotoxic waste, pharmaceutical waste, radioactive waste, etc
- general waste e.g. incontinence aids, etc
- food scraps



Disposal of Waste

Disposal requirements are in accordance with:

- Environment Protection (Waste Management) Policy
- Environment Protection (Waste Management) Regulations
- Australian and New Zealand Standards
- Organisation Policies and Procedures

Waste is required to be sorted into for example:

- hazardous
- recyclable
- general

Strict guidelines are in place for the safe storage and disposal of hazardous waste. It will be required to be contained firstly in a hazard bag, disposed of into a locked hazard bin that is contained in a locked area away from unauthorised access, ready for collection by a hazardous waste disposal service.

Handling of Sharps



Sharps are a major cause of incidents involving potential exposure to blood borne diseases and must be handled with care at all times following the organisation's policies and procedures.

When handling sharps it is advisable to make sure everyone in close proximity is aware of the potential risk and that safe work practices are engaged. Many safety devices for the safe removal, disposal and storage have been designed and are readily available to minimise the risk of a needlestick injury occurring. Single use sharps also reduce this risk.

Protocols for care following exposure to blood or other body fluids may include, but are not limited to:

- immediate care following a sharps injury
- reporting to RN immediately for advice
- completing an Accident/Incident Report recording all appropriate details including who was notified, treatment given, identifying the area of the body the needlestick injury was sustained, etc

- legal requirements for the notification of all work related occurrences of injury, disease or illness
- visit made as soon as possible to own General Practitioner for blood tests

Correct disposal of sharps in a specifically designed sharps container that is puncture resistant, leak proof and clearly labelled, identifying the hazard contained within, will minimise the risk of cross-contamination.

These containers are to be stored in a safe environment within the care environment to ensure children or confused adults are unable to access.



Follow procedures for handling and cleaning client equipment that prevents skin and mucous membrane exposures, contamination of clothing and transfer of pathogens.

Appropriate Equipment Handling

Care support workers need to ensure:

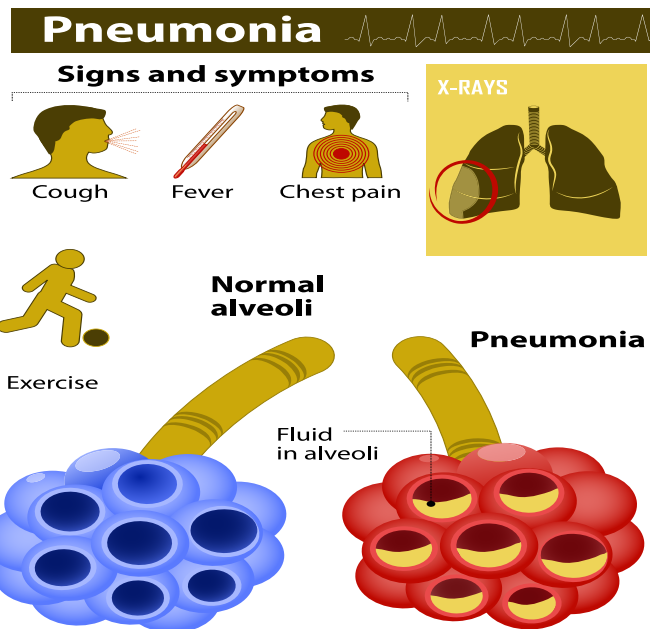
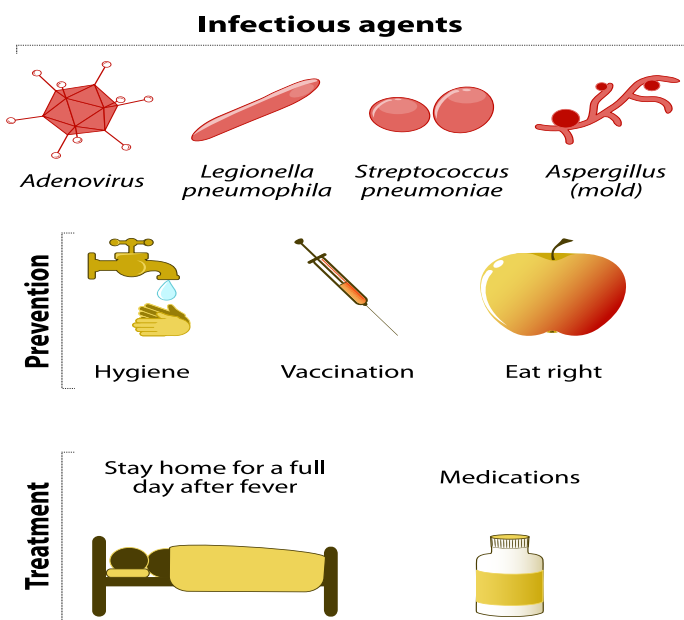
- reusable equipment is not used for the care of another care recipient until it has been appropriately cleaned, sterilised or reprocessed
- to discard single use equipment immediately after use in the designated appropriate manner
- they wear task appropriate PPE where there is a risk of exposure to harmful pathogens
- the correct storage of clean equipment to minimise the risk of contamination

Cleaning Procedures

These may include but are not limited to, for example:

- damp dusting benches, furniture, equipment and shelving
- maintaining the interior of drawers and cupboards in a clean, dust free and tidy state
- cleaning floors daily, using a mop, water and neutral detergent
- storing cleaning equipment in a clean, dry, locked room
- managing blood or body fluid spills





Contaminated Articles and Equipment

All contaminated articles are to be contained before leaving the care recipient's room. Care support service organisations will have written into their Policies and Procedures the correct procedure to follow including the types of equipment to be utilised for contaminated items. This may include the use of, for example:

- yellow or red plastic hazard bags
- dissolvable bags
- colour coded linen skips
- sterilising machines, etc.

Depending on the organisation policy for the individual care recipient clothing, soiled with body fluids or blood, these items are generally placed into a plastic bag without contaminating the outside of the bag so they are identifiable to laundry staff and placed into the appropriate linen skip.

Colostomy or Catheter Bags

Changing colostomy bags requires support workers to be aware of their environment and to collect all essential equipment before commencing this procedure. This will aid in management and eliminating the risk of cross-contamination or spills occurring.

When emptying catheter bags, it is important to use gloves to minimise the risk of cross-contamination. Those persons living with permanent catheters insitu are at a higher risk of contracting an infectious disease. Wiping the end of the catheter tap after releasing the bag contents, for example, with an alcohol-wipe will not only reduce any odour of urine but any residue will be removed, reducing the risk of pathogens multiplying and entering through the catheter tubing into the body.

Identify and respond to situations where additional precautions may be required to prevent transmission of infection.

Asepsis

Is described as the state of being free from disease causing microorganisms, for example, bacteria, viruses, fungi or parasites. It also refers to the practices used to break the chain of infection and prevent or minimise the risk of infection being transmitted from one site to another.

Technique

Care support workers are required to apply work practices that prevent the transmission of infection. These practices may involve for example, but not limited to:

- good personal hygiene practices including the laundering of uniforms, washing of hair, etc
- aseptic hand washing techniques either with soap and water or alcohol based hand rubs to reduce the number of infectious agents on the skin
- wearing task appropriate PPE placing a barrier between themselves and any infectious agents they may come in to contact with
- using colour coded equipment in designated areas only
- following the correct procedures for reprocessing of instruments and equipment

Additional Precautions

Are the precautionary work practices required to be taken when a care recipient is diagnosed with colonisation of, or suspected of being infected with, highly transmissible infectious pathogens. Additional precautions are based on the mode of transmission and are required when it is recognised that standard precautions alone will not suffice.

Complete Activity No. 4



Additional precautions may include the use of, for example, but are not limited to:

- special ventilation requirements where there is risk of contamination with airborne diseases
- use of single use disposable equipment
- additional use of PPE, for example, face shield, goggles, gown, mask, etc
- use of a respirator mask, especially when tuberculosis has been diagnosed
- dedicated equipment for each individual care recipient, for example, nasal prongs, oxygen mask, etc
- use of a special facility i.e. steriliser, debulker washing machines, yellow hazard bag
- isolation of infected person, for example, containing them to their own room preferably with an ensuite
- keeping people traffic to a minimum, minimal visitors
- prompting cough etiquette
- appropriate environmental surface and equipment cleaning, including those surfaces that are frequently touched
- careful handling of bed linens, towels and personal clothing of care recipient
- correct disposal of hazardous waste

Identify infection hazards associated with own role and work environment.

Examples of infection hazards may include, but are not limited to:

- sharps injuries
- waste including general waste
- discarded sharps
- human waste, human tissue and related waste
- animals, insects and vermin
- inhalation of aerosols
- contact with blood and other body substances
- personal contact with infectious materials or substances and/or care recipients
- stock, including food which has passed the “used by” dates

Procedures for risk control may include, but are not limited to:

- eliminating a hazardous process
- using PPE appropriately
- changing a system of work to reduce a hazard
- isolating the hazard
- using protective devices to decrease exposure
- using safe handling techniques
- following infection control policies and procedures

- procedures to minimise the risk of exposure to blood and body fluids
- regular education and competency assessments for all care support workers

Identify infection hazards and assess risks.



Strict infection control practices are required when collecting specimen samples i.e. blood, stool, urine or sputum.



Ensure samples are contained in air tight containers, placed into a biohazard bag and stored appropriately for pathology to collect.



Identify own areas of responsibility in relation to infection prevention and control.

The Chain of Infection

Understanding the chain of infection can help to control infection. Each link in the chain is an opportunity to interrupt the infection process. This knowledge is vitally important for care support workers to have so they understand how to stop infection occurring.

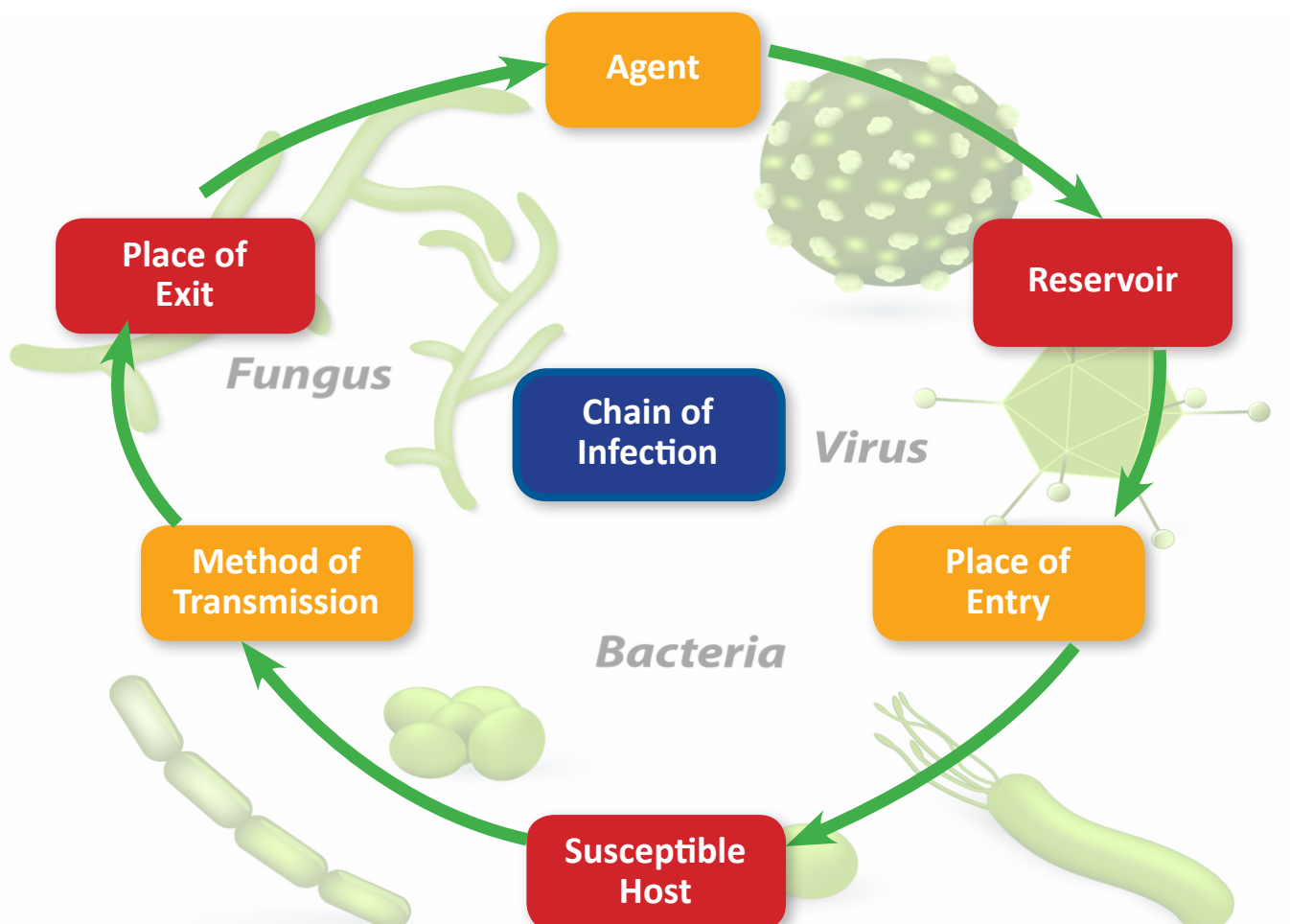
Infections occur when certain conditions exist. These conditions are called **the Chain of Infection** and each link in the chain represents, for example:

- **the agent** - the pathogen that causes the harm. Any microorganism that can cause a disease such as a bacterium, virus, parasite, or fungus. These organisms have the ability to multiply and to enter the body's tissue
- **the reservoir** - the environment where sufficient amounts of the microorganisms reside e.g. toilet seats, in the soil, food, plants, in the air, water, from within or on a person or animal, door handles, etc
- **place of exit** - how or where the agent leaves the reservoir e.g. place where the infection exits the reservoir including the rectum, nose, mouth, body substances e.g. sputum, vaginal fluids, sperm, urine, faeces, saliva, blood

- **method of transmission** - how the infectious organism is transmitted e.g. **Direct** contact i.e. person to person or airborne. **Indirect** i.e. common environmental surfaces, shared objects or shared equipment
- **place of entry** - where the microorganism enters the next host's body. The infection survives outside the body and enters the next person via, for example:
 - breaks in the skin, open wounds
 - entry into the blood stream via an insect bite
 - feeding tubes, urinary catheters
 - the digestive tract into the gastrointestinal tract
 - the respiratory tract
 - sexual transmission
 - mucous membranes
- **susceptible host** - the infectious microorganisms have entered another person who is 'susceptible' and the chain begins again. Those persons living with a chronic illness, for example, diabetes, or a weakened immune system, are more vulnerable.

The Immune System

Protects the body from disease and infection. When an older person has an infection they do not always display signs and symptoms. They may not complain of pain. Confusion and delirium may occur. An infection can become life threatening before the older person has obvious signs and symptoms.



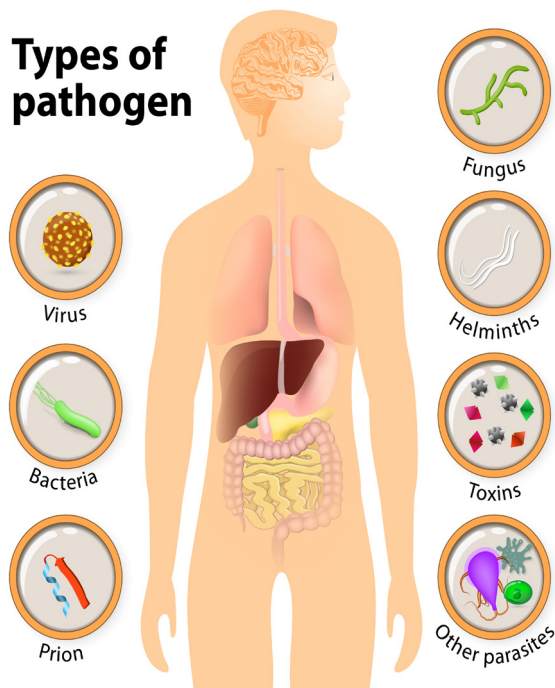
As the human body ages changes take place in the integumentary system. With this change also comes the added risk for skin infections and inflammation.

Immunity is the ability of the body to fight off disease caused by microbes. A pathogenic microbe that enters the body is an antigen. Our body responds to the antigen by producing in the blood a substance called antibodies, which will then prevent the body from having a reoccurrence of the same disease.

Ill care recipients are particularly susceptible to infectious diseases, as are the very young and those with a compromised poorly functioning immune system.

All body and body substances are considered to be potentially infectious. When working with any body spills, strict WHS Policy and Procedural Guidelines for Infection Control need to be maintained. **All body spills are contaminated spills.** This principle is applied universally to all care recipients, clients and patients, regardless of their infectious status. Support workers need to apply precautions that encompass full PPE.

Assess risk by determining the likelihood and severity of harm from identified hazards.



Susceptible Host

Is a person who has little to no immunity leaving them vulnerable to invading pathogenic organisms. The level of susceptibility is dependent upon several risk factors.

Factors that increase the susceptibility to infection may include for example, but is not limited to:

- age e.g. being elderly or very young
- poor personal hygiene and toileting practices
- in-dwelling medical equipment e.g. catheter
- physical condition e.g. weak, frail, malnourished

- suffering other diseases or conditions e.g. cancer, heart disease, blood disorders, diabetes, ulcers, etc
- the body unable to produce antibodies
- compromised immune status
- receiving medical treatment that increases the risk of susceptibility e.g. chemotherapy
- medications, for example, those persons on long term antibiotics are prone to fungal infections
- those persons living with two or more illnesses known as comorbidity
- geographical location e.g. underdeveloped third world country

Spreading Infections

Confused adults who are unable to attend their own personal hygiene pose an additional challenge to maintaining infection control standards in health care settings.

Due to the level of confusion, the person lacks the cognitive ability to recognise the need to hand wash after episodes of incontinence or toileting and as these persons often use their hands and mouths to explore their environment, they are more at risk of contracting infections.

Our bodies have some natural defences to protect it against infections. An example of an external defence is our skin. Intact skin acts as a barrier against the entry of pathogens.

Other defences our body possesses include:

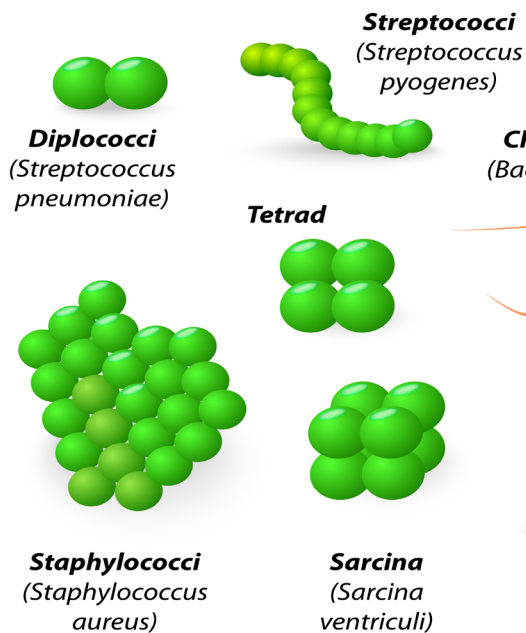
- mucous membranes lining the respiratory, reproductive, gastrointestinal and urinary tracts
- fine microscopic hairs known as Cilia lining the respiratory tract
- the stomach's hydrochloric acid destroys many microbes
- coughing and sneezing removes foreign material from the respiratory tract
- our eyes produce tears which flush most microbes from the eyes

Our bodies also possess **internal defences and reactions** against infectious agents which include, for example:

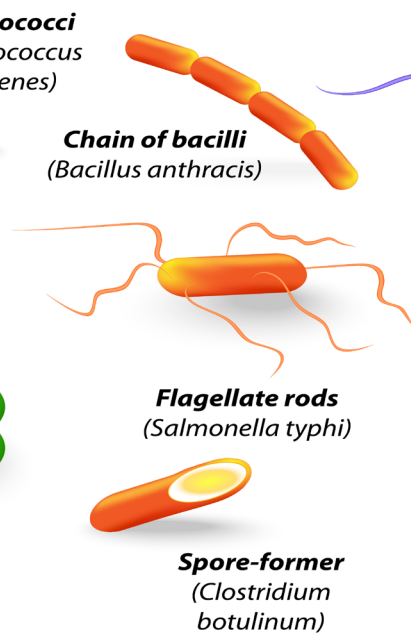
- fever/elevated temperature increases the bodies ability to fight infection
- inflammation is how our body sends blood and phagocytes (special cells in the blood that destroy microbes) to the infected area
- immune response is how our body develops protective proteins after having an infectious disease

SHAPES OF BACTERIA

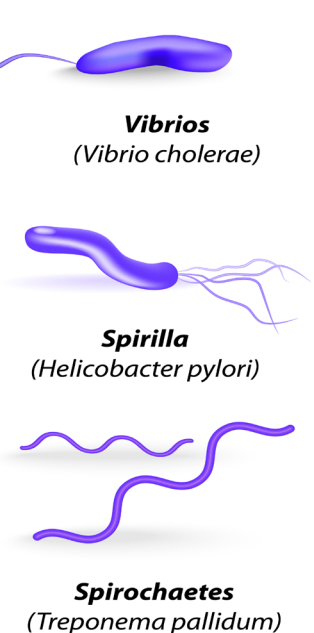
COCCI



BACILLI



OTHERS



Immunisation

Is an artificial defence against specific pathogens. Vaccines are artificial or weakened antigens that help the body develop protective antibodies before the need arises. Health care workers may be exposed to certain infections in the course of their work.

Vaccines are readily available to provide some protection to workers in a health care setting. Depending on regulations, recommendations, the specific work function or personal preference, health care workers may receive vaccinations for Hepatitis B, Influenza, Measles, Mumps and Rubella, Tetanus, Diphtheria, Pertussis (whooping cough), Meningitides and Varicella (chickenpox).

In general, vaccines do not guarantee complete protection from disease and there is the potential for adverse effects from receiving the vaccine.

For information in relation to the Australian standard vaccination schedule and the "Immunise Australia Program" refer to the website:

<http://www.immunise.health.gov.au/>

Basis of Infection

Bacterial Infections

Can cause serious skin, respiratory, urinary tract and gastrointestinal infections. When a bacterial infection is suspected, a sample of e.g. urine, blood, drainage from a wound, etc, is taken and sent to pathology for testing to identify the type of bacteria to ensure the correct remedial action is taken i.e. the correct antibiotic prescribed to fight the bacteria.

It is essential that all medications are consumed and full dosage completed to ensure all the bacteria has been destroyed. If the full dose is not completed the person is at risk of the microbes that remain developing a resistance to the antibiotic.

The support worker has a duty of care to observe for changes in the care recipient and report immediately to the supervisor i.e. Registered Nurse or Team Leader.

Microorganisms (microbes)

Are small (micro) living plant or animal (organisms) which can only be seen through a microscope. Microbes are everywhere. They are in the mouth, nose, respiratory tract, stomach, intestines, on the skin, within our bodies, in and on the food we eat and on what we touch or handle. They are also in the air, soil, water and food. They are on animals, clothing and furniture. Examples of these living organisms include bacteria, protozoa, virus and fungi.

Difference between harmless microorganisms and pathogens.

Harmless microorganisms (non-pathogens) are microbes that do not usually cause infection. When a non-pathogen is transmitted from its natural site to another host, it then becomes a pathogen.

Some are very helpful in the processing of certain foods that are consumed. Other harmless bacteria are found in the digestive system and they aid in the breakdown of food. Good bacteria when added to milk, for example, makes yoghurt or cottage cheese or yeast in bread making.



Pathogens are harmful microbes that can cause disease. An example of a dangerous pathogen is the bacteria known as Staphylococcus or Clostridium Tetani.

Difference between colonisation, infection and disease.

Colonisation is where the body has pathogens on or in it, but they do not make the person sick. No symptoms present with colonisation, unlike a person who has an **infection** where the harmful pathogens have made the person sick with symptoms such as a fever.

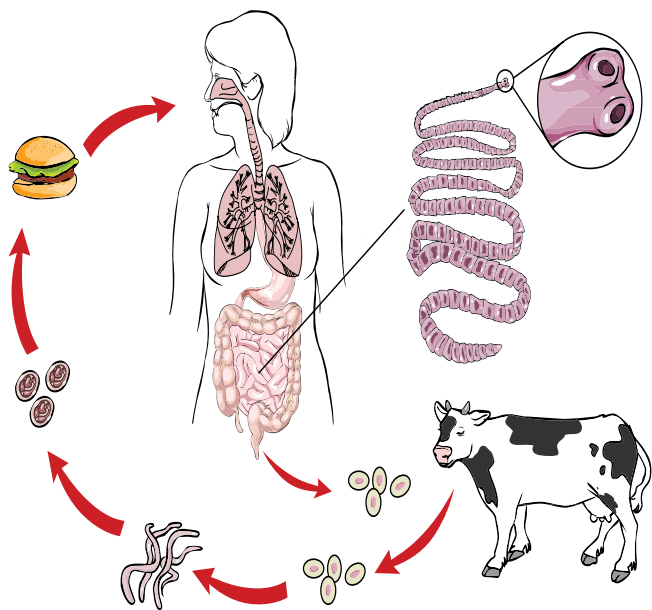
An infected person has firstly been **colonised** with harmful pathogens which then have uncontrolled growth and multiply in the new host's body.

MRSA can cause colonisation or infection. Staphylococcus can remain harmless on the skin but once it enters the body it quickly becomes an infection.

A **disease** is a particular kind of illness caused by bacteria or infection and it can also be transmitted to others.

Source of Infectious Agents - Different Types of Pathogens.

Parasites



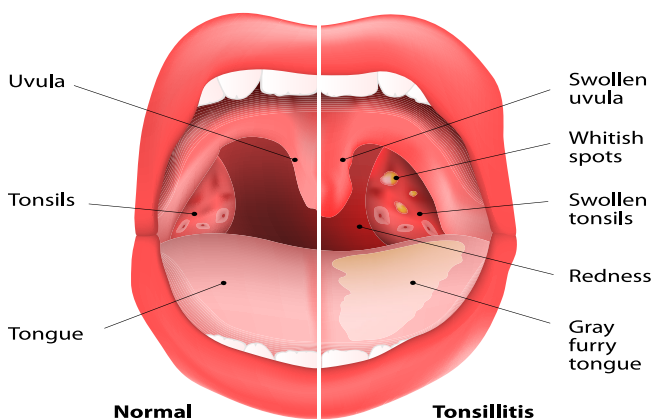
Parasites are known to invade the blood, liver, intestines and body tissues. Helminths are an example of a parasitic worm. They are the most common infectious agents of humans in developing countries.

Examples include, but are not limited to:

- flatworms, which include liver and intestinal flukes, tapeworms
- thorny headed worms, that reside in the gastrointestinal tract
- round worms, that can be found in the blood, gastrointestinal tract, lymphatic system and subcutaneous tissue. They can cause gastroenteritis, malnutrition and protein depletion

Bacteria

BACTERIAL TONSILLITIS



Bacteria are plant life that multiply rapidly forming colonies. They are referred to as germs and they are one-celled microbes.

They can cause infection in any of the body systems, for example, the skin, respiratory tract, urinary tract and bloodstream.

Bacteria is named after its shape, for example:

- bacillus - straight rod shape
- coccus - round or spherical shape
- spirillum - shaped like a cork screw or spiral or slightly curved.

Identification of the type of bacteria relies on the shape and type of colony they form, for example, bacteria that:

- colonise in pairs are known as diplo
- form clusters are known as staphylo
- those that form chains are strepto

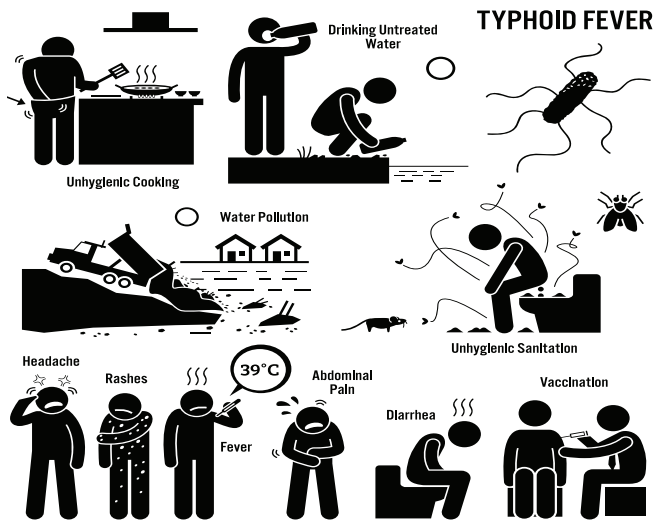
For example, round micro-organisms grouped in pairs are called diplococcus and is the bacteria related to gonorrhoea; grouped in chains are called Streptococcus Hemolyticus, which cause septic sore throats and rheumatic fever; round grouped in clusters are called staphylococci, which cause many infections of surgical wounds, abscesses, boils and toxic shock.

Bacterial Spores

Bacterial spores are extremely resistant and have been known to survive in the soil for many years, for example, tetanus and anthrax. Because of the thick outer wall of the spore it is able to survive in hostile environments.

Bacillus and clostridium are examples of spore forming bacteria. Washing hands with soap and water is preferred after known or suspected exposure. It also has been recommended, in an outbreak, for the support worker to wash hands with soap and water and then apply ABHR.

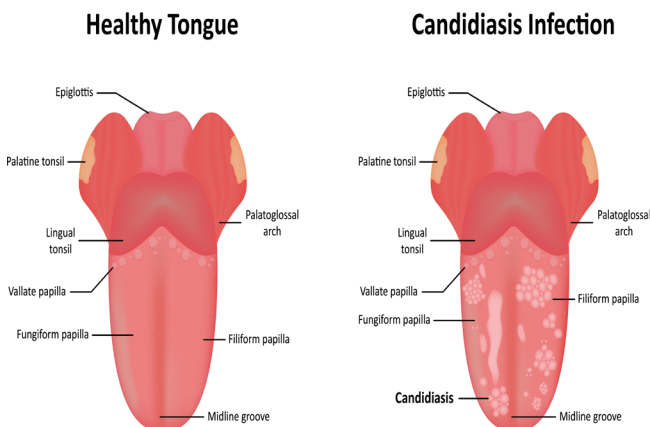




Typhoid Fever is caused by a microorganism called Salmonella typhi.

Fungi

Oral Thrush



Fungi were previously known as plants that live on other plants or animals. Fungi have now been categorised as having their own kingdom. One of the first essential differences from plants is that fungi are heterotrophic i.e. an organism that cannot synthesize its own food and is dependent on complex organic substances for nutrition. They obtain carbon for growth and energy from complex organic compounds.

Secondly, their cellular walls are composed of chitin, a carbohydrate that lacks in plants but can be found in the external skeleton of insects and crustaceans. In addition, fungi can store glycogen as a reserve material just like animals do. (<http://www.thefreedictionary.com/heterotrophic>)

Under normal conditions, these organisms are harmless, however, when the immune system is impaired and unable to protect the body these organisms can invade the body and cause severe infections.

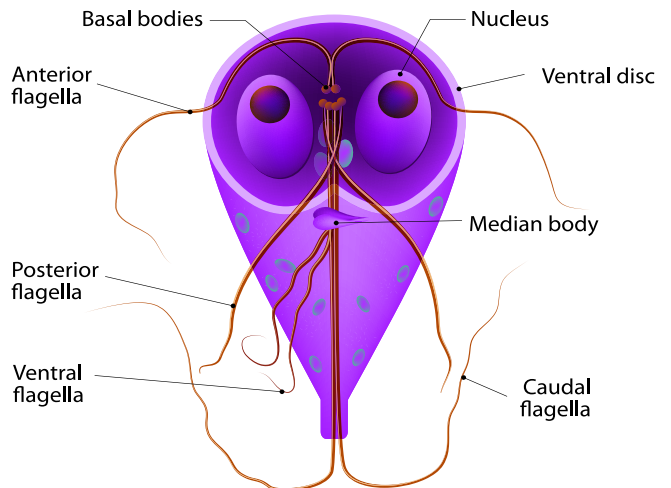
For example, a person with AIDS is very susceptible to fungal infections as their immune system is unable to function effectively.

Mushrooms, yeasts, single-celled budding forms of fungus are common fungi. Fungi can infect, for example, such areas as:

- the mouth and vagina - known as thrush/candida
- skin - in the form of a ringworm
- feet - known as tinea
- a common mould found in the lung of humans is called Aspergillus.

Protozoa

GIARDIA



Protozoa are one-celled organisms that live on living matter. They can infect the blood, brain, intestines and other body areas, causing diseases such as malaria where the microscopic protozoan invades the red blood cells causing them to split and the person experiences chills and fever, toxoplasmosis and African sleeping sickness. Symptoms and signs can be in the form of diarrhoea, dysentery (infection in the lower bowel) and inflammation of the brain (encephalitis).

Protozoa are classified by the way they move, as some move with a whip-like tail, others with a hair-like projection. Giardiasis is caused by Giardia Lamblia, which is found in the water supply and causes severe diarrhoea but responds to medication.

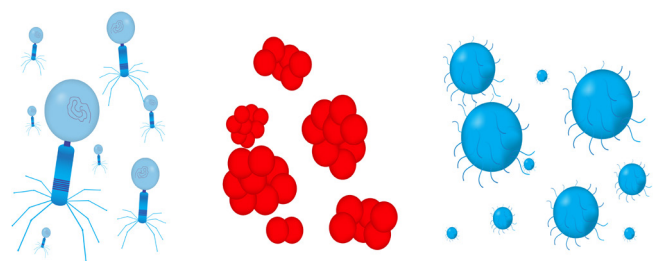
Virus

Viruses

Rhinovirus

Influenza

HIV



Viruses grow in living cells and are the smallest microbe with a variety of shapes. Viral infections occur when the virus enters the cells of the body and reproduce. They can only reproduce when they enter a living cell.

The body's first line of defence against a virus is the immune system. Vaccinations also stop the spread of many viral diseases.

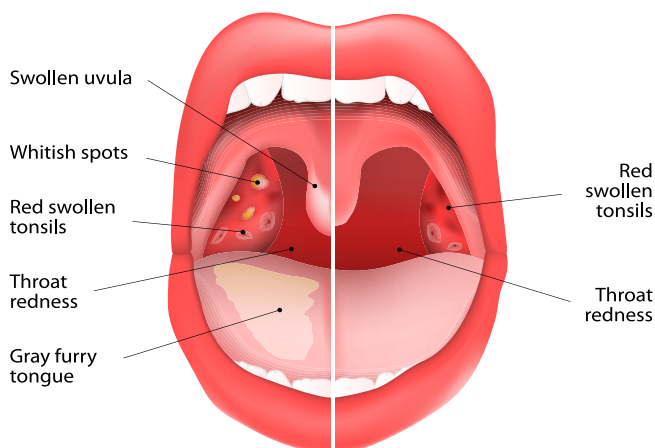
There are thousands of different viruses found around the world. Many have been known to be deadly, for example:

- Ebola Zaire currently in West Africa. Of those infected people, it is killing up to 90%. (Based on WHO)
- Rabies spread by infected animals
- Smallpox in 1980, the World Health Assembly
- Hantavirus spread by infected vermin e.g. mice
- Influenza
- Dengue Fever spread by mosquitos
- Rotavirus
- HIV, where nearly 1 in every 20 adults in Sub-Saharan Africa is HIV-positive,

(According to WHO. - See more at: <http://www.livescience.com/48386-deadliest-viruses-on-earth.html#sthash.b65M42sd.dpuf>)

Bacterial infection

Viral infection



Comparison of a Bacterial to a Viral infection.

Virus routes of transmission are, for example:

ROUTE	VIRUS
Animal	Rabies, Lyssavirus, Hendra
Faecal-oral	Rotavirus, Hepatitis A, Polio, Norovirus
Insect Mosquito	Ross River, Dengue Fever, Yellow Fever, Zika
Insect Tick	Lyme disease, Q fever, tick-borne encephalitis
Insect Fleas	Plague, Rickettsiosis

ROUTE	VIRUS
Insect Sandflies	Sandfly Fever (phlebotomus fever)
Respiratory	Cold, Influenza, Measles, Mumps, Reubella
Sexually	HIV, Human Papilloma Virus, Hepatitis B, Herpes
Skin	Human Papilloma Virus e.g. warts

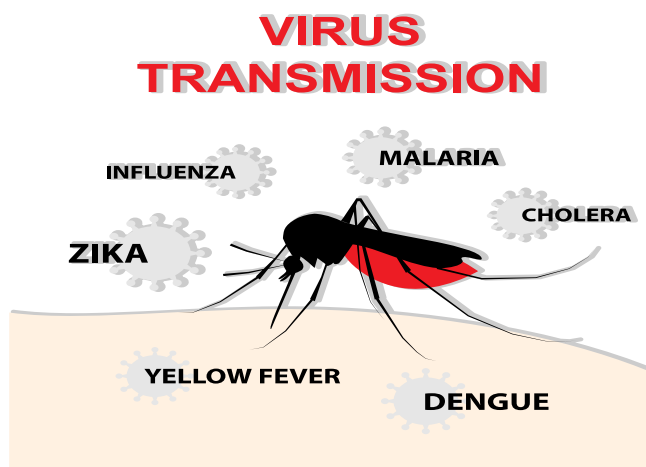
Health care workers must take Hepatitis very seriously because many individuals have no signs and symptoms of illness, yet are able to transmit the infection to others.

Key facts:

- Vector-borne diseases account for more than 17% of all infectious diseases, causing more than 1 million deaths annually.
- More than 2.5 billion people in over 100 countries are at risk of contracting Dengue Fever alone.
- Malaria causes more than 600,000 deaths every year globally, most of them children under 5 years of age.
- Other diseases such as Chagas disease, Leishmaniasis and Schistosomiasis affect hundreds of millions of people worldwide.
- Many of these diseases are preventable through informed protective measures.

(Sourced: <http://www.who.int/mediacentre/factsheets/fs387/en/>)

Mode of Transmission

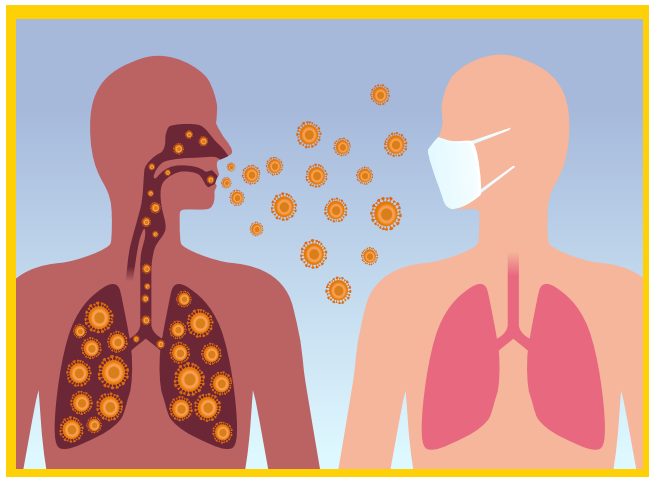


There are three recognised ways that infectious organisms may spread, they include:

1. Airborne
2. Droplet
3. Contact

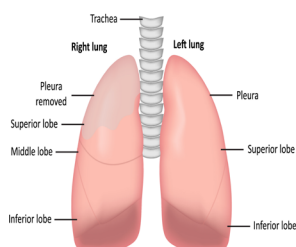


Airborne

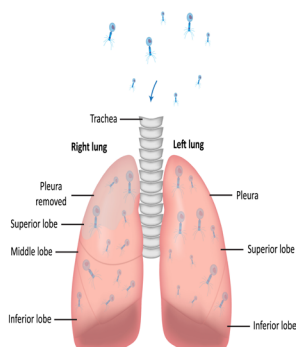


Influenza

Healthy



Influenza Infection



Airborne transmission is where the harmful pathogens are carried through the air by moisture or dust particles. They can travel a long distance from the source by natural air currents and through ventilation systems. Fine particles can remain suspended in the air for extended periods of time.

A disease is classified as airborne when respiratory droplets from one person contaminates another. Virus, Bacteria and Fungi all have airborne particles.

Airborne diseases are caused by pathogenic microbes that are aerosolised i.e. are spread by fine droplets in the air. The smaller the particle exhaled by the infected person and then inhaled by the new host, the further it will pass into and down the new host's respiratory tract.

Airborne precautions require the care recipient to remain isolated in their room with the door kept closed. Care support workers will be requested to take additional precautions when attending the care needs of infectious persons, which includes the wearing of a N95 or P2 particulate filter personal respiratory protection mask. These masks are appropriate for the majority of airborne infectious diseases found in a health care setting.

Examples of airborne diseases include:

- Influenza
- Tuberculosis
- Measles
- Chickenpox
- Shingles

Additional Precautions to Apply

Before **entering** a room:

1. Perform hand hygiene
2. Don task appropriate PPE including a N95 or P2 mask
3. Perform a check that the mask is secure

Leaving a room:

1. Remove gloves and dispose of gloves
2. Perform hand hygiene
3. Remove and dispose of mask, apron, shoe covers, etc
4. Perform hand hygiene

Droplet -



Pathogens are spread up to approximately 1 metre, with no 1-1 contact. For example, a person will spread droplets when they cough, sneeze, talk, sing or laugh. These are called small particle aerosols. They may be breathed in by another person and stay suspended in the air for minutes or hours.

Care support workers will be required to take additional precautions when entering a care recipient's room, preferably wearing a N95 or P2 respirator or surgical mask, if they have been diagnosed with an infectious disease. Droplet contracted diseases may include, for example:

- Meningitis
- Pertussis (whooping cough)
- Influenza
- Measles/Rubella



- Respiratory Viral Infections
- Mumps
- Group A Streptococcal infections in infants and young children
- Group A streptococcal Pneumonia or Scarlet Fever in all age groups

Additional Precautions to Apply

Before **entering** a room:

1. Perform hand hygiene
2. Don task appropriate PPE including a surgical mask

Leaving a room:

1. Remove and dispose of gloves
2. Perform hand hygiene
3. Remove and dispose of mask, apron, shoe covers, etc
4. Perform hand hygiene

Contact



Contact diseases are transmitted when an infected person has direct bodily contact with an un-infected person.

Examples of contact acquired diseases and infections may include:

- herpes virus
- athletes foot
- highly contagious skin infections or infestations e.g. scabies, impetigo, ringworm, etc
- measles when contact is made with respiratory secretions
- chickenpox, shingles
- head or body lice
- conjunctivitis
- cold sores
- croup
- diarrhea
- ebola
- coxsackievirus (hand-foot-mouth disease)

Contact is the most important and frequent mode of transmission of hospital acquired infections known as nosocomial infections which are a result of treatment in a hospital. Infections are considered nosocomial if they appear 48 hours or more after a hospital admission or within 30 days after discharge. This type of infection is also known as hospital acquired infection (HAI) or healthcare associated infection.

Contact transmission is divided into two groups:

1. **Direct** contact, and
2. **Indirect** contact

1. Direct Contact

Pathogens are spread through **direct** contact with an infected person. In a care support environment this may occur when providing care activities with a care recipient, for example, when:

- repositioning and turning
- peri-washing, showering, bathing, shaving, oral care
- changing incontinence aids, toileting
- dressing and undressing
- assisting to eat meals and drink fluids
- cleaning body spills
- changing bed linens in an occupied bed
- attending skin integrity e.g. applying moisturisers
- performing wound care without appropriate PPE
- performing transfers with lifting aids, etc

Direct contact with an infected person may also be via, for example:

- sexual contact
- exchange of body fluids including vomitus, saliva, faeces, urine or sputum

2. Indirect Contact

May occur with an infected person via contaminated equipment or instruments used to meet their individual care needs. Examples may include:

- syringes, needles, lancets, razors
- touching personal items
- soiled clothing, attending laundry
- bed linens, towels, napkins
- uneaten food, water,
- dressings, specimen containers
- contaminated gloves not changed between procedures

Additional Precautions to Apply

Before **entering** a room:

1. Perform hand hygiene
2. Don task appropriate PPE including a gown or apron, gloves, etc



Leaving a room:

1. Remove and dispose of gloves
2. Perform hand hygiene
3. Remove and dispose of mask, apron, shoe covers, etc
4. Perform hand hygiene

Further Examples of Infecting Microorganisms

Pseudomonas Aeruginosa

Is a common bacterium which can cause disease in animals and humans. It is found widely in the environment, for example, in soil and water. It is one of the most common causes of infections in humans ranging from mild to serious. Pseudomonas is spread on the hands of support workers and unclean equipment.

For example, in a healthy person, a mild infection of the ear or skin rashes. In a person with a compromised immune system, they may have blood infections, pneumonia and, worst case scenario, death.

Pseudomonas is the leading cause for gastrointestinal, urinary and respiratory tract infections. This bacteria is also found in and on medical equipment for example catheters. Good hand hygiene practices and environmental cleaning lower the risk of infection.

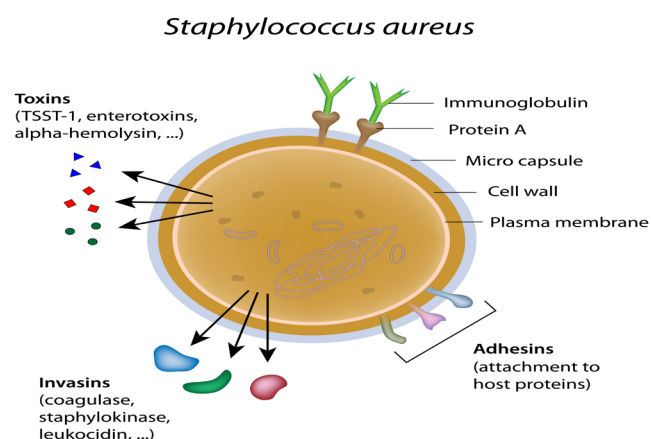
(Based on information from: Mayo Clinic and Centres for Disease Control and Prevention)

Pseudomembranous Colitis, also called Clostridium Difficile (C.Diff)

Pseudomembranous Colitis is the inflammation of the colon from an overgrowth of the bacterium C.Diff and is often related to the recent use of antibiotics. The C. Diff causes the person to have diarrhoea. The body's good bacteria die off as a result of the antibiotic treatment, which then allows the harmful bacteria to multiply.

C. Difficile is very common in health care settings. It is easily transmitted and is found, for example, on the hands, commodes, toilets, sinks, bed rails, doorknobs and other surfaces that have been contaminated by faeces. It most commonly enters the body through the mouth by contact with **unwashed hands**.

(Based on information from: Mayo Clinic and Centres for Disease Control and Prevention)



Two groups of bacteria have become resistant to two of the most powerful antibiotics i.e. Methicillin and Vancomycin.

These bacteria are found on the skin and in the nose of people and are known as:

1. **MRSA** – Methicillin Resistant Staphylococcus Aureus, commonly known as golden staph.
2. **VRE** - Vancomycin Resistant Enterococci – found in the gastrointestinal tract. They are the major cause of hospital acquired infections (HAI) in health care settings. Most strains are highly resistant to many antibiotics.

Complete research for additional relevant information on Influenza, MRSA and VRE before completing Summative Questions 5 and 6. For example, website:

<http://www.health.nsw.gov.au/Infectious/factsheets/Pages/methicillin-resistant.aspx>



Escherichia Coli (E.Coli)

Normally live in the intestines of healthy people, where it is a non-pathogen. This changes once it is outside the body. It is the most frequent cause of common bacterial infections, for example, urinary tract and traveller's diarrhoea. It has been known to cause kidney failure, and even death, in those persons with a weakened immune system.

E. Coli infections are caused by eating foods that contain the bacteria. They are associated with, for example:

- eating undercooked contaminated beef
- drinking unpasteurised milk
- eating contaminated vegetables
- swallowing swimming pool water that has been contaminated with human waste

Symptoms include:

- nausea and vomiting
- severe abdominal cramping
- watery and/or bloody diarrhea
- fatigue and fever



Streptococcus

There have been 21 identified species of streptococcus. A,B,C,D and G cause most of the infections in humans. A person can be colonised or infected.

Those at greatest risk include:

- children with Chickenpox
- persons with suppressed immune systems
- burn victims
- elderly persons living with diseases, for example, cellulitis, diabetes, vascular or cancer
- those persons receiving chemotherapy treatment
- surgery or open wounds e.g. ulcers

Group A cause common infections, for example, pharyngitis (sore throats), scarlet fever and impetigo. It can be spread by sneezing, coughing and hand contact. Group B is related to newborn infections. Group D accounts for 70% of bacterial pneumonia.

(<https://www.health.qld.gov.au/ph/Documents/cdb/19686.pdf>)



Salmonella

Salmonella bacteria can infect both people and animals. They can also grow in food and the environment. It is known to survive several months in water. You become infected with Salmonella by ingesting the bacteria through your mouth, for example:

- eating contaminated, undercooked meat, most commonly chicken
- unhygienically thawed chicken, melt water contains bacteria
- eating contaminated raw or under-cooked eggs
- eating food that has been cross-contaminated with Salmonella from raw foods, especially meats, poultry and eggs
- handling pets and other animals, raw meat and pet meat
- drinking water that has been contaminated, usually by animals or sewage.

Person-to-person spread can happen if you come into contact with microscopic amounts of faeces from an ill person.

Such spread may occur directly by close personal contact, or indirectly by touching contaminated surfaces such as taps, toilet flush buttons, toys and nappies.

(Based on information from:

http://healthywa.wa.gov.au/Articles/S_T/Salmonella-infection)

Mycobacterium Tuberculosis

Tuberculosis (TB) is a disease caused by infection with the bacteria (germ) Mycobacterium Tuberculosis. TB can damage a person's lungs or other parts of the body and cause serious illness.

It requires oxygen to grow. A person can become infected with tuberculosis bacteria when they inhale minute particles of infected sputum from the air. The bacteria get into the air when someone who has a tuberculosis lung infection coughs, sneezes, shouts, vomit or spits.

TB is uncommon in Australia. Care support workers may be required to undergo a Tuberculin skin test, known as the Mantoux screening skin test, especially if at risk of exposure.

(Information based on source: <http://www.thefreedictionary.com>)

Document and report activities and tasks that put self, clients, visitors and/or other workers at risk.

Individual support service providers will have Risk Management Policies and Procedures developed in accordance with the Work Health and Safety Act guidelines.

The support worker is responsible for reporting immediately to a supervisor, and documenting any changes in the care recipient, especially if they are at risk of exposure to any pathogens.

Care recipients who are suspected of, and presenting with symptoms of an infection, must be assessed by the Registered Nurse. Support workers may be exposed to harmful pathogens when performing support activities. Symptoms to report immediately may include, for example, but is not limited to:

- coughing, sneezing or wheezing
- nausea, vomiting, spitting up sputum
- febrile, clammy, flushed
- watery or bloody diarrhoea
- strong smelling or discoloured urine
- altered mental state, confusion or disorientated
- complaining of sore throat, aching body/limbs
- rashes, blistering sores, itchy
- wounds inflamed and not healing
- increased pain levels, etc.



Identify appropriate control measures to minimise risk in accordance with Organisation's Procedures.

Each support service provider will have an Infection Control Committee or Advisor which will initially provide advice for the management and investigation of suspected risks. The organisation's Policies and Procedures will reflect the control measures to be taken under specific circumstances to minimise risk.

The aim for infection prevention and control procedures is to contain and isolate, to minimise the risk of transmission.

In the event of an outbreak, for example, of Rotavirus, Norovirus or Influenza, the Australian Government Department of Health must be notified and they make recommendations to the service provider's Infection Control Committee.

The main goal of managing an outbreak is to prevent a further increase in incidence of healthcare associated infection (HAI) and identify factors which may have contributed to the outbreak. This allows for the development and implementation of measures to prevent future outbreaks.

Australian National Notifiable Diseases as of January 2016 Australian Government Department of Health include:

Bloodborne Diseases:

- Hepatitis (NEC)
- Hepatitis B (newly acquired)
- Hepatitis B (unspecified)
- Hepatitis C (newly acquired)
- Hepatitis C (unspecified)
- Hepatitis D

Gastrointestinal Diseases

- Botulism
- Campylobacteriosis
- Cryptosporidiosis
- Haemolytic Uraemic Syndrome (otherwise known as HUS)
- Hepatitis A
- Hepatitis E
- Listeriosis
- Salmonellosis
- Shiga Toxin-producing E. Coli or Verotoxin-producing E. Coli (otherwise known, respectively, as STEC or VTEC)
- Shigellosis
- Typhoid Fever

Quarantinable Diseases

- Cholera
- Avian Influenza in humans
- Middle East Respiratory Syndrome Coronavirus (otherwise known as MERS-CoV)
- Plague
- Rabies
- Severe Acute Respiratory Syndrome (otherwise known as SARS)
- Smallpox
- Viral Haemorrhagic Fever
- Yellow Fever

Sexually Transmissible Infections

- Chlamydia
- Donovanosis
- Gonococcal infection
- Syphilis - congenital
- Syphilis - less than 2 years duration
- Syphilis - more than 2 years duration or unspecified duration

Vaccine Preventable Diseases

- Diphtheria
- Haemophilus Influenzae Type B
- Influenza (laboratory confirmed)
- Measles
- Mumps
- Pertussis
- Pneumococcal Disease-Invasive
- Poliovirus Infection
- Rubella
- Rubella - congenital
- Tetanus
- Varicella Zoster Infection - Chickenpox
- Varicella Zoster Infection - Shingles
- Varicella Zoster Infection - unspecified

Vectorborne Diseases

- Barmah Forest virus infection
- Chikungunya virus infection
- Dengue virus infection
- Flavivirus infection (unspecified)
- Japanese Encephalitis virus infection
- Kunjin virus infection
- Malaria
- Murray Valley encephalitis virus infection
- Ross River virus infection

Note: Vectorborne means transmitted by an insect or other organism.



Zoonoses

- Anthrax
- Australian Bat Lyssavirus infection
- Brucellosis
- Leptospirosis
- Lyssavirus infection (NEC)
- Ornithosis (otherwise known as Psittacosis)
- Q Fever
- Tularaemia

Note: The term Zoonoses refers to diseases which are communicable to humans from another animal species.

Other Bacterial Diseases

- Legionellosis
- Leprosy
- Meningococcal disease - invasive
- Tuberculosis

General appropriate control measures to minimise risk may include, but is dependent upon type of infection, for example:

- confirm the cause of infection, collect specimens for pathology
- if more than two people affected, seek advice from the Department of Health
- isolate and confine ill care recipients to their rooms
- support workers to remain away from the work place if infected and seek medical advice and clearance
- frequent aseptic hand washing techniques with soap and water and the use of ABHR
- taking additional precautions and wearing of task appropriate PPE i.e. dependent on type of infection
- environmental cleaning use a neutral detergent to clean commonly-touched surfaces such as handrails, chair arms, door knobs, hand basins, taps, toilet handles. Clean isolation areas with cleaning equipment designated for the affected area
- dispose of contaminated waste appropriately. Provide sick care recipients with a suitable receptacle for tissue disposal
- annual vaccination programs for both care recipients and support workers
- one area of risk for support workers is from those care recipients who have behaviours of concern, including biting

The Department of Social Services provide a Gastro-Info-Outbreak Coordinator's Handbook as a resource to assist residential aged care facilities in the event of a gastroenteritis outbreak.

For further information refer to https://www.dss.gov.au/sites/default/files/documents/09_2014/d03221104_gastro_info_kit_outbreak_coordinators_handbook_webta.pdf

Follow protocols for care after exposure to blood or other body fluids as required.



Exposure to harmful pathogens may occur when contact between blood or body fluids and a non-intact skin or with mucous membranes occurs. Response in this type of situation is:

- immediately contact Registered Nurse on duty
- emergency medical response call - 000 if care recipient is known to have, for example, HIV, to reduce the risk of transmission of blood borne pathogens
- render immediate first aid e.g. flush with water
- seek medical advice
- complete an Incident Report

Place appropriate signs when and where appropriate.

- located at all hand washing bays and toilet areas



- placed in a prominent position warning where spills have occurred or cleaning in progress



- strategically placed at hand washing bays, kitchen, bedrooms, bathrooms, etc.



- clearly identify hazardous waste storage areas



Many other signs will be utilised, for example, but not limited to:

- 'speak to attending supervisor before entering' when attempting to enter an area an organisation has closed to contain an infectious disease
- notice to the public 'No entry permitted due to gastroenteritis outbreak'
- Safety Data Sheets, providing information on cleaning products, safe use and response in case of emergency or accidental exposure
- sharps disposal unit
- laundry and kitchen clean areas and contaminated entry and exit zones
- identifying the purpose of each colour coded linen skip
- clean linen only storeroom
- hazardous substance storage areas
- dirty utility room , etc.

Remove spills in accordance with the policies and procedures of the organisation.

Refer to pages 15-16

Minimise contamination of materials, equipment and instruments by aerosols and splatter.

It is essential to minimise the risk of accidental re-introduction of potentially contaminated materials, equipment or instruments in the care environment.

The correct storage methods, for example, in a locked storeroom away from the general population and only accessible to staff, will help to minimise the risk of contamination occurring.

Single use items are not always a financial option for service providers, but they are an effective tool in containing the risk of infection.

Identify, separate and maintain clean and contaminated zones.

To minimise cross-contamination and regulate the flow of clean and contaminated items in a care support environment, separate zones are required. For example:

- food preparation areas e.g. all food served ready for consumption leaves the kitchen area via one door and all dirty plates, utensils and left-over food enters the kitchen via a different door, separating the clean and contaminated areas of the kitchen

- laundry areas - the same principle applies as kitchen areas i.e. all soiled linen and clothing enters through one entry only, is then washed and dried and leaves via the clean door only

Confine records, materials and medicaments to a well-designated clean zone.

Office areas, where records are stored, are generally located away from the general population or flow of care recipient traffic in the care environment. They may be in enclosed offices requiring a key or code for access to be gained.

Medicaments must be stored in a locked office away from unauthorised access.

Confine contaminated instruments and equipment to a well-designated zone.

A well-designated zone for contaminated items is often referred to, in the care environment, as a 'dirty utility room'.

Examples of this type of zone's contents is dependent on the individual organisation and the service they provide. They may include, for example:

- linen skips - which may be colour coded or clearly labelled identifying the contents held
- steriliser machines - ready to process contaminated items, for example, urinals, slipper pans, mop heads, reusable instruments, etc.
- spill kits- stocked with items ready for any emergency, for example, body spills of blood, faeces or urine
- debulker washing machines - ready to process and decontaminate soiled linen and clothing
- sharps disposal containers - for the safe disposal of such sharps as, for example, lancets, syringes, single use razors, scalpels, etc.



Complete Summative Assessment Questions





Australian Government

National Health and Medical Research Council

Published on *National Health and Medical Research Council* (<https://www.nhmrc.gov.au>)

Generated on 24 May 2016 @ 3:38pm

B1.6 Respiratory Hygiene and Cough Etiquette

Respiratory hygiene and cough etiquette should be applied as a standard infection control precaution at all times. Covering sneezes and coughs prevents infected persons from dispersing respiratory secretions into the air. Hands should be washed with soap and water after coughing, sneezing, using tissues, or after contact with respiratory secretions or objects contaminated by these secretions.

Table B1.15: Steps in respiratory hygiene and cough etiquette

Anyone with signs and symptoms of a respiratory infection, regardless of the cause, should follow or be instructed to follow respiratory hygiene and cough etiquette as follows:

- Cover the nose/mouth with disposable single-use tissues when coughing, sneezing, wiping and blowing noses
- Use tissues to contain respiratory secretions
- Dispose of tissues in the nearest waste receptacle or bin after use
- If no tissues are available, cough or sneeze into the inner elbow rather than the hand
- Practice hand hygiene after contact with respiratory secretions and contaminated objects/materials
- Keep contaminated hands away from the mucous membranes of the eyes and nose

Health care/social workers should also assist patients (e.g. elderly, children) who need assistance with containment of respiratory secretions. Those who are immobile will need a receptacle (e.g. plastic bag) readily at hand for the immediate disposal of used tissues and will need to be offered hand hygiene facilities.

Respiratory hygiene and cough etiquette are particularly important for patients on droplet precautions (see [Section B2.3](#)).

B1.6.1 Resources

- [Department of Health and Ageing](#)
- [US Centers for Disease Control and Prevention](#)
- [Health Protection Scotland \(2009\) Respiratory Hygiene and Cough Etiquette Standard Infection Control Policy \(Accessed July 2009\)](#)
- WHO (2007) Infection Prevention and Control of Epidemic- and Pandemic-Prone Acute Respiratory Diseases in Health Care WHO Interim Guidelines, WHO, Geneva.

Source URL (modified on 16/06/2011 - 12:36): <https://www.nhmrc.gov.au/book/australian-guidelines-prevention-and-control-infection-healthcare-2010/b1-6-respiratory-hygiene>

Source: National Health and Medical Research Council

Information Sources and References for study purposes:

- Workcover NSW - www.workcover.nsw.gov.au
- NSW Department of Health - www.health.nsw.gov.au
- <http://www.health.nsw.gov.au/hospitals/hai/index.asp>
- National Health and Medical Research Council
- Hand Hygiene Australia www.hha.org.au and (WHO) World Health Organisation 'How to Handwash', URL: http://www.who.int/gpsc/5may/How_To_HandWash_Poster.pdf, and 'How to Handrub', URL: http://www.who.int/gpsc/5may/How_To_HandRub_Poster.pdf © World Health Organization 2009. All rights reserved. Permission received by SUVEE to use posters.
- www.nswnurses.asn.au
- NSW Health Infection Control Policy
- Infection Control in the Health Care Setting
- <http://www.who.int/mediacentre/factsheets/fs387/en/>
- Purchased Shutterstock Photos
- <http://www.hha.org.au/LearningPackage/olp-home.aspx>
- Sourced: <http://www.hha.org.au/About/GloveUsePolicy.aspx>
- Web site referral: <http://www.immunise.health.gov.au/>
- Sourced: <http://www.thefreedictionary.com/heterotrophic>
- According to WHO. - See more at: <http://www.livescience.com/48386-deadliest-viruses-on-earth.html#sthash.b65M42sd.dpuf>
- Mayo Clinic and Centres for Disease Control and Prevention
- <https://www.health.qld.gov.au/ph/Documents/cdb/19686.pdf>
- Based on information from: http://healthywa.wa.gov.au/Articles/S_T/Salmonella-infection



HLTINF001

Comply with infection prevention and control policies and procedures

**For information
about SUVEE resources**

Phone 0427 313 967

Email suvee@suvee.com.au

or visit our website
suveeagedcaretraining.com.au

SUVEE
Customised resources promoting
professional consistent training

