INFECTION CONTROL
SELF DIRECTED LEARNING
PACKAGE

NAME________________________________________

HEALTH SERVICE / DEPARTMENT ____________________________

GRCE Points 4
Revised Version December 2013
About the Authors

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Particular acknowledgement is made to the original authors Wendy Bacalja, Marianne Cullen and Matt Mason.

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It uses extensively the three reference sources cited and is aimed at making the information within each more concise and accessible to clinicians at a unit based level.
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**Aims**

- The aim of this package is to provide a concise educational reference tool for all registered nurses, midwives and enrolled nurses working within the hospital environment.
- To provide a resource that may be used to train key liaison nurses to assist in the everyday management of infection prevention and control issues at a unit-based level.
- To increase the knowledge base of all nurses on the clinical issues related to infection prevention and control and how they relate to all areas of practice.

**Objectives**

This educational reference package should be completed within six weeks of its distribution.

At completion of the package nurses will be able to:

1. Define standard precautions
2. Define transmission based precautions
3. Describe the personal protective equipment that is used for both standard and transmission based precautions
4. Describe when transmission based precautions are required
5. Describe the purpose and application of the 5 moments of hand hygiene
6. List when it is appropriate to use an alcohol based hand rub
7. Compare the 4 types of waste
8. Educate other staff as to the appropriate refuse receptacle for each type of waste
9. Coordinate the appropriate clinical infection control management of patients admitted with a variety of infectious diseases
10. Explain the needle stick protocol of their facility
11. Explain the management of multi-resistant organisms within an acute care facility with reference to the appropriate guidelines
12. Complete the open book assessment task at end of the package and gain a pass mark of > 80%

**Instructions**

Please take your time to complete the package and assessment task. Submit your assessment task to the Infection Prevention and Control Consultant or clinical nurse educator, who will mark and return in a timely manner.

If you have any questions or require further explanation and precise information please refer to the reference list included or talk to your facilities Infection Prevention and Control Consultant and make yourself familiar with your facilities relevant policies on infection control and staff health.
Chapter One

STANDARD AND TRANSMISSION BASED PRECAUTIONS

The consistent and appropriate use of these precautions will provide a high level of protection against transmission of diseases to patients, healthcare workers (HCWs) and all others within the Healthcare setting. Infection control is based on a two tiered approach:

- Standard precautions and
- Transmission based precautions

To achieve a basic level of infection prevention and control, standard precautions are used all the time, every time for every patient regardless of whether there is an obvious risk of infection or not.

Transmission based precautions are used in conjunction with standard precautions when there is the suspicion or confirmation of a microorganism that cannot be contained with standard precautions alone.

STANDARD PRECAUTIONS

These are precautions taken by all HCWs and those who have contact with patients to prevent the spread of microorganisms. They are the standard safe work practices applied to all patients regardless of their infectious status. They are the minimum requirements to maintain control of infections in the healthcare setting, and are designed to protect patients and HCWs.

- Hand Hygiene – appropriate personal hygiene practices paying particular attention to adequate hand hygiene before and after patient contact. This includes aseptic technique with appropriate and correct use of skin disinfectants.
- Personal Protective Equipment (PPE) – use of personal protective equipment, gloves, impermeable gowns, waterproof aprons, eye protection, face shields or masks. All health care workers should wear personal protective equipment if there is a potential risk of contact with any blood and body fluids (except sweat) regardless of whether they contain visible blood. See Table 1:1.
- Equipment – appropriate reprocessing of reusable instruments and equipment, including the appropriate use of disinfectants.
- Single use items are for single use only
- Waste Disposal – appropriate management of sharps, blood spills, linen and waste.
- Environmental Management – environmental controls including design and maintenance, cleaning and spills management
- Food and Laundry services – appropriate provision of support services including laundry and food services.
- Staff Health – staff immunisations and exposure follow up.
## Table 1:1 PERSONAL PROTECTIVE EQUIPMENT

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Application</th>
</tr>
</thead>
</table>
| Gloves                     | ▪ *Sterile Gloves* - for a sterile field  
                                    ▪ *Non Sterile Gloves* – for all procedures other than above  
                                    ▪ *Utility Gloves* – for housekeeping  
                                    
                                    **GLOVES NEVER SUBSTITUTE FOR HAND HYGIENE**  
                                    ▪ Change and discard single use gloves after each patient contact, after separate procedures, when damaged, at completion of any task and before answering the phone and writing in patient notes.  
                                    ▪ DO NOT wash and reuse  
                                    |
| Protective eye wear and face shields | ▪ Must be worn where there is the potential for splash or spray of blood or body substances.  
                                    ▪ Re-useable after cleaning or single use.  
                                    ▪ Prescription spectacles are not protective eyewear and must be used in combination with protective goggles/glasses.  
                                    |
| Mask and respiratory protection devices | ▪ Must be worn where there is the potential for splash or spray of blood or body substances or where airborne infection may occur.  
                                    ▪ Must be fitted and worn correctly (firmly covering mouth and nose), not touched by hands when on, removed when moist or soiled, removed by strings, and NOT worn around the neck.  
                                    ▪ *Surgical Mask* – fluid repellent paper filter masks  
                                    ▪ *Particulate Filter Personal Respiratory Protection Devices* - P2 or N95  
                                    |
| Gowns and Plastic aprons    | ▪ To be worn to protect HCWs clothing and skin from contamination by blood or body substances splashing on their clothing  
                                    ▪ Single use items only.  
                                    |
| Uniforms                   | ▪ Uniforms must be clean and changed daily  
                                    ▪ Long hair or beards should be covered/tied back for aseptic or sterile procedures.  
                                    |
TRANSMISSION BASED PRECAUTIONS

Transmission based precautions are employed when a patient has a **known or suspected** illness that cannot be contained with standard precautions alone. The infectious agent can be transmitted by:

**Table 1:2  MODE OF TRANSMISSION**

<table>
<thead>
<tr>
<th>Transmission mode</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Droplet</td>
<td>Large particle droplets are generated from the source person during coughing, sneezing, and talking or during procedures such as suctioning and bronchoscopy. Nebulised medications can also produce droplets containing infectious material. Transmission occurs when the droplets are propelled through the air and make contact with the mucous membranes of a susceptible person (nose, eyes and mouth). Droplets cannot stay suspended in the air, therefore for transmission to occur we need to be within 1 metre of the source e.g <strong>rubella, pertussis</strong></td>
</tr>
<tr>
<td>Airborne</td>
<td>Diseases transmitted via the airborne route involve small airborne droplets/particles that can remain suspended in the air for long periods. Because of this, these diseases are easily dispersed in air currents and transmitted when susceptible people inhale the contaminated particles e.g <strong>TB, measles</strong></td>
</tr>
<tr>
<td>Contact</td>
<td>Transmission may occur when staff acquire organisms on their hands during patient contact or contact with contaminated objects in the environment and they may subsequently transfer the organisms to a susceptible person e.g <strong>MRSA, Norovirus</strong></td>
</tr>
<tr>
<td>Resistance (CJD specific)</td>
<td>Inherent resistance to standard sterilisation procedures or other disease specific means of transmission where standard precautions are not sufficient e.g <strong>Creutzfeldt-Jakobs Disease</strong></td>
</tr>
</tbody>
</table>

Transmission based precautions should be tailored to the particular infectious **AGENT** involved and the **MODE** of transmission.

Transmission based precautions may include one or more of the following:
- Single room with ensuite or dedicated toilet
- Cohorting if a single room is not available
- Special ventilation requirements (negative air pressure)
- Additional use of Personal Protective Equipment (e.g P2/N95 particulate masks)
- Rostering of immune workers to patients with infectious diseases (Chicken pox)
- Dedicated patient equipment
- Restricted movement of patients and health care workers

*See Table 1:3*
### Table 1:3  TRANSMISSION BASED PRECAUTIONS

<table>
<thead>
<tr>
<th>Requirement/s</th>
<th>MODE OF TRANSMISSION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Airborne</td>
</tr>
<tr>
<td>Gloves</td>
<td>None</td>
</tr>
<tr>
<td>Impermeable Apron/Gown</td>
<td>None</td>
</tr>
<tr>
<td>Respirator/Mask</td>
<td>Particulate filter personal respiratory device (Measles, TB, SARS, Avian only) All other surgical masks. N95/P2</td>
</tr>
<tr>
<td>Goggles and face shield</td>
<td>Protect face if splash likely.</td>
</tr>
<tr>
<td>Special handling of equipment</td>
<td>None</td>
</tr>
<tr>
<td>Single room</td>
<td>Yes or cohort same infection. Door closed</td>
</tr>
<tr>
<td>Negative pressure</td>
<td>Essential for TB</td>
</tr>
<tr>
<td>Other</td>
<td>Encourage patients to cover nose and mouth when coughing and sneezing and to wash hands after blowing nose.</td>
</tr>
</tbody>
</table>

Reference CDNA 2-6
Chapter Two

CLINICAL APPLICATION

The application of standard and transmission based precautions is incorporated very specifically into several key elements of the health care environment. The following clinical specific topics will be overviewed:

- Hand hygiene
- Environmental cleaning and spills management
- Clinical waste
- Sharps disposal
- Reprocessing of instrument and equipment
- Linen, laundry and food
- Staff Health and
- Occupational exposures

HAND HYGIENE

*Hand-Hygiene is the single most important strategy to reduce the risk of infection.* For effective Hand-Hygiene to occur, we need soap, water, mechanical activity, rinsing and thorough drying of the hands and/or the correct use of an alcohol based hand rub. HCWs must perform hand hygiene after any significant contact with patients and before and after activities likely to cause contamination. These include:

- On arrival at work
- Before having direct contact with patients/residents
- Before donning gloves
- Before inserting invasive devices
- After contact with patient/residents intact skin
- After contact with blood/body fluids, mucous membranes, non-intact skin, wound dressings
- When moving from a contaminated body site to a clean body site
- After contact with inanimate objects in vicinity of patient/resident
- After removing gloves
- Before and after eating, smoking
- When leaving and re-entering the ward
- Before going home

HAND CARE

Hand care is important, as intact skin is a natural barrier to infection. Any skin breaks are a possible source to pathogen entry. Cuts and abrasions are to be covered by a water-resistant occlusive dressing. If hands need to be moisturised a product that is compatible with supplied hand-hygiene products MUST be used. Hand moisturisers shall be aqueous based to prevent deterioration of latex gloves.

HCWs who have skin problems such as exudative skin lesions and weeping dermatitis must seek medical advice and be removed from direct patient care until the condition resolves.

Rings and artificial nails must **not** be worn when performing invasive procedures. The centre for Disease Control (CDC) suggests that nails should be clean and short.
Please read your facility’s policy relating to Hand Hygiene.

ENVIRONMENTAL CLEANING AND SPILLS MANAGEMENT

Regular cleaning of the hospital clinical environment is important for the successful institution of standard and transmission based precautions. Deposits of dust, soil and microbes on environmental surfaces can transmit infection. Routine cleaning and maintenance is therefore necessary to maintain a safe environment in health care facilities.

Organisational protocols should be available that shall incorporate cleaning frequency and methods. Standard precautions shall be implemented.

Neutral detergents are best for environmental cleaning, as they are less likely to cause damage to surfaces or cause skin irritation.

Surface Cleaning

Floors shall be cleaned daily. The following are suitable means of surface cleaning;
- Vacuum cleaner that is fitted with a regularly cleaned and changed particulate containing filter or a ducted system used.
- Damp dusting is acceptable.
- Dust retaining mops may be used as they don’t disperse organisms.

Dust retaining mops and brooms are NOT to be used in high risk areas such as theatre, CCU/ICU, or burns units. See Table 2:1 for surface cleaning guidelines next page.

Spills Management

The basic precautions of blood and body substance spills are
- Standard precautions and personal protective equipment (PPE)
- Spills must be cleared up before the area is cleaned
- Avoid generation of aerosols
- Spills management is flexible to cope with different types of spills. The management of spills will be dependent on the:
  - Nature
  - Pathogen
  - Size
  - Surface
  - Area

In wards, waiting rooms and patient treatment areas spills should be cleaned up as soon as possible.

PPE must be utilised when cleaning spills.

Wiping with paper towelling and then cleaning with detergent can manage spots and drops.
Large spills should be contained to prevent spread by using an absorbent paper towel or the absorbent material provided in a spill kit. Generation of aerosols
should be avoided. Once the area is cleared it may be mopped using a hypochlorite solution and mop head returned to laundry for laundering.

Paper towel should be disposed of in clinical waste and the mop bucket cleaned and stored dry. Care should be taken to thoroughly clean and dry the area.

**Table 2:1  SURFACE CLEANING  1 Step Cleaning**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routine Surface Cleaning</td>
<td>• Work surfaces should be cleaned and dried before each session or when soiled</td>
</tr>
<tr>
<td></td>
<td>• A neutral detergent and warm water should be used</td>
</tr>
<tr>
<td></td>
<td>• If a disinfectant is used follow manufactures recommendations</td>
</tr>
<tr>
<td></td>
<td>• Buckets must be washed with detergent and stored dry after use</td>
</tr>
<tr>
<td></td>
<td>• Mops must be laundered then stored dry</td>
</tr>
<tr>
<td>Wet Areas</td>
<td>• Clean daily.</td>
</tr>
<tr>
<td></td>
<td>• More frequently if soiled or patients requiring transmission based precaution</td>
</tr>
<tr>
<td></td>
<td>• Cleaning method should avoid generation of aerosols</td>
</tr>
<tr>
<td>Walls and fittings</td>
<td>• Cleaned and when visibly soiled</td>
</tr>
<tr>
<td></td>
<td>• Carpets vacuumed daily</td>
</tr>
<tr>
<td></td>
<td>• Curtains and blinds changed regularly and as necessary when soiled or incorporated into terminal cleaning.</td>
</tr>
<tr>
<td>Maintenance of equipment</td>
<td>• Cleaning items should be changed routinely</td>
</tr>
<tr>
<td></td>
<td>• Changed immediately following cleaning of blood or body substances</td>
</tr>
<tr>
<td></td>
<td>• Changed after each session in contaminated areas eg Theatre</td>
</tr>
<tr>
<td></td>
<td>• Items should be washed in detergent, rinsed and stored dry</td>
</tr>
<tr>
<td></td>
<td>• Mop heads should be laundered</td>
</tr>
<tr>
<td>Terminal Cleaning (Post MROs or other infectious diseases as per facility policies)</td>
<td>• As for routine surface cleaning above then:</td>
</tr>
<tr>
<td></td>
<td>• Rooms should be cleaned with hypochlorite solution.</td>
</tr>
<tr>
<td></td>
<td>• Curtains changed.</td>
</tr>
</tbody>
</table>

Please read your facility’s policy relating to Environmental Cleaning.

**CLINICAL WASTE**

There are four types of clinical waste. These incorporate:

1. **Clinical** – sharps, laboratory and specimen waste, human tissue and blood and animal tissue used in research.
2. **Related** – cytotoxic, pharmaceutical, chemical and radioactive
3. **General** – all other waste which is not included in the above categories and that is no more risk than household waste.
4. **Anatomical** – Human tissue and body parts.
Segregation

Waste should be segregated at the point of generation in appropriate colour coded, labelled containers.

Waste should be segregated according to the portion that represents the highest risk.

Clinical waste must be in an appropriate leak resistant container that is not overfilled and NOT compacted by hand.

There are four main categories of waste disposal containers:

1. **Clinical waste** – Yellow plastic bags or rigid containers for sharps both with a black biohazard symbol
2. **Cytotoxic waste** – Purple containers with a telophase symbol
4. **Antatomical waste** – Large burgundy or small orange rigid containers.

**SHARPS DISPOSAL**

Sharps may include disposable needles and syringes, scalpel blades, single use razors, blood glucose lancets, intravenous stylets or any object that has the potential to break skin integrity that has been in contact with blood or body substances.

Each clinical environment that has the potential to generate sharps must have access to the appropriate sharps waste container. They must be placed as close as possible to the point of generation but not be in a position that may allow contamination of other wastes by sharps (E.g. Over a general waste container in the pan room)

There are several safety precautions that relate directly to the handling of sharps by HCWs:

- Sharps are disposed at point of use by person generating sharps
- Do not hand sharps to another person
- Do not resheath needles
- Do not bend or break needles
- Do not remove by hand from disposable syringes
- Handle with care at all times
- Dispose of in puncture resistance disposal containers
- Disposal units should not be placed above receptacles for linen or paper.
REPROCESSING OF INSTRUMENTS AND EQUIPMENT

Reprocessing of equipment refers to:
- Cleaning
- Disinfection and or
- Sterilisation

Instruments must be reprocessed to a level appropriate for their intended use. This depends on the body site and the associated risk of the procedure.

The minimum levels of reprocessing are based on three risk categories:
1. Critical
2. Semi-critical
3. Non-critical

### Table 2:2  REPROCESSING REQUIREMENTS

<table>
<thead>
<tr>
<th>Level of risk</th>
<th>Application</th>
<th>Process</th>
<th>Storage</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical</td>
<td>Entry or penetration into sterile tissue, cavity or blood stream</td>
<td>Sterilisation by steam under pressure or low temperature chemical sterilant systems, liquid chemical sterilant or ethylene oxide</td>
<td>Maintain sterility. Must be dry. Integrity of package maintained away from environmental contamination. Once unpacked must be used immediately</td>
<td>All instruments, rigid endoscopes and accessories used in invasive surgical procedures.</td>
</tr>
</tbody>
</table>
| Semi-critical | Contact with intact mucosa or non-intact skin | Heat tolerant items
- Steam sterilisation or
- Thermal disinfection
Heat sensitive items
- Low temperature automated chemical sterilant systems
- Or high level chemical disinfection | Store to protect from environmental contamination. | eg Breathing circuits, Baby bottles
Flexible endoscopes, Ultrasound probes. |
| Non-critical  | Contact with intact skin | Clean as necessary with detergent and water if decontamination is required clean with a low grade disinfectant after cleaning. | Store in a clean dry place. | Stethoscopes, BP cuffs and equipment
Thermometers |

All equipment for reprocessing should be cleaned with detergent and water immediately after use prior to returning for reprocessing. Care should be taken to avoid the generation of aerosols.
LINEN AND LAUNDRY

There should be policies and procedures in place for the storage disposal, collection and processing of all linen items (as per AS/NZS4146).

Standard precautions should be used at all times when handling linen.

- Linen should be placed in appropriate collection bag at the place of generation
- Do not sort linen in patient care areas
- Linen heavily soiled with fluid should be placed in an impermeable bag in the linen skip. Check your organisational policy.
- Soiled and clean linen should be stored and transported separately
- Bags should be filled to ¾ only so they are easily sealed and transported
- Avoid sharps and other objects being placed in linen bags (see sharps disposal)

AS/NZS 4146 is the standard for the cleaning method for linen used in hospitals and aged care.

FOOD

Healthcare facilities have special requirements for the operation of food services. Patients are at increased risk and care must be taken to minimise this risk. All foods should be considered potential sources of infection. Food preparation should follow state regulations and the Food Standards Australia and New Zealand.

Preparation requires attention in:
- Raw foods
- Personal hygiene
- Kitchen hygiene
- Time and temperature control of all food-handling operations including
  - Cooling
  - Cooking
  - Reheating and
  - Distribution

Education of food handlers is a vital link in good food preparation. This education should include information regarding personal hygiene and food borne illnesses. Health Care Workers with diarrhoea should be cleared by their doctor before returning to food handling duties. Open skin lesions should be covered with waterproof, occlusive dressings to prevent spread of bacteria.

A food safety program for individual establishments must be developed. Hazards, Analysis, Critical, Control Points (HACCP) is an approach to infection control that identifies hazards and has specific measures for their control. There are seven basic principles that can be applied to achieve this outcome. These safety programs are registered with the local council and subjected to an annual external audit. Each manager of the food preparation environment is responsible for ensuring the successful implementation of this program. Each component is outlined briefly below.
- Purchase – Food must be purchased from a reputable source.
• Receipt – Integrity and temperature is checked at arrival.
• Storage – Food is segregated into refrigerated, freezer or dry storage. No cardboard boxes are to be used and no refilling of containers.
• Preparation – Food is prepared according to standards that stipulate raw and cooked food areas; implements and cleaning.
• Cooking – Food is heated to the required temperature and cooked fully to avoid replication of or cause the death of normal food pathogens.
• Holding – Stored food must be segregated into appropriate storage areas. Food must be covered, and dated if not delivered and discarded within a timely manner. Food prepared in hospital kitchens must not be stored with other food sources Eg patients’ own food or staff food.
• Service / delivery – Food is covered delivered in a timely manner to patients and must be consumed within one hour of preparation. Food must NOT be reheated in individual wards/units using microwaves. Refrigerators are for the storage of hospital supplied food only, should be kept clean and temperatures monitored daily. (FSANZ 2001)

Ice machines are potential reservoirs for infectious agents and have been implicated in disease outbreaks. These machines should be maintained and serviced regularly (AS/NZS 3335.2.24. 1994). Clean implements only must be used to obtain ice from the machine. Ice machines must be emptied and cleaned on a regular basis. Observe your organisational policy.

STAFF HEALTH

In the same way that patients with infectious diseases may pose a risk to health care workers (HCWs), these same HCWs may pose a risk of passing on infections to patients or colleagues. Health care establishments must provide personal protective equipment, immunisations, and educational materials and have reporting mechanisms that ensure safe work practices. Pregnant HCWs should be not being unnecessarily exposed to any potential infectious environment or patient that may pose a risk to the foetus. Staff should have their immunological status verified at the commencement of employment and reassessed if pregnant. Immunisations must adhere to the current Australian Immunisation Handbook.

The advice of a medical officer should be sought for staff members who have any of the following diseases as listed in the Table 2.3.
Table 2.3  PRECAUTIONS FOR PREVENTION OF INFECTIOUS DISEASES

<table>
<thead>
<tr>
<th>Disease</th>
<th>Mode of transmission</th>
<th>Precautions</th>
<th>Immunisation and testing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Viral diseases</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cytomegalovirus (CMV) infection</td>
<td>Contact (mucosal contact with infectious tissues, secretions and excretions)</td>
<td>• Inform of risks and give opportunity to be tested for susceptibility.</td>
<td>Pregnant HCWs may be tested to determine their susceptibility.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Counsel about hygiene and permit to minimise contact with CMV-infected patients.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Seronegative pregnant HCWs may be redeployed to care for patients unlikely to be excreting CMV.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Pregnant HCWs may be tested to determine their susceptibility.</td>
<td></td>
</tr>
<tr>
<td>Infectious mononucleosis (glandular fever)</td>
<td>Contact with saliva (via oropharyngeal route)</td>
<td>Standard precautions and basic hygiene.</td>
<td></td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>Contact (faecal–oral route)</td>
<td>• Standard precautions for continent patients.</td>
<td>Immune HCWs at high risk</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Transmission based precautions (contact transmission) for incontinent patients — a single room with ensuite toilet is desirable.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Infected HCWs should avoid contact with non immune patients and HCWs.</td>
<td></td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>Bloodborne (direct contact with blood or body substances)</td>
<td>Standard precautions</td>
<td>• Immunise all HCWs, particularly clinical contact and laboratory staff</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Test for seroconversion after 3 months.</td>
<td>• Reimmunise if seronegative or if poor serological response (ie &lt;10 mIU/L)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• HCWs performing exposure prone procedures have a responsibility to know their Hepatitis B virus status.</td>
<td>• Blood incident testing protocol applies.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Blood incident testing protocol applies.</td>
<td></td>
</tr>
<tr>
<td>Disease</td>
<td>Mode of transmission</td>
<td>Precautions</td>
<td>Immunisation and testing</td>
</tr>
<tr>
<td>------------------------------</td>
<td>--------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Hepatitis C                  | • Bloodborne (direct contact - blood to blood)          | • Standard precautions                                                       | HCWs performing exposure prone procedures have a responsibility to know their infectious status for Hepatitis C virus.  
• Blood exposure testing protocol applies. |
| Herpes simplex virus infection | • Contact (droplet spread by direct contact or indirectly by fomites or by contact with infected lesions) | • Standard precautions  
• Transmission based precautions (contact and droplet transmission) for patients with lesions disseminating infectious virus  
• HCWs should cover vesicular lesions. When lesions uncovered, exclude HCW from contact with neonates or immunocompromised patients, and from operating rooms and delivery suites |  |
| HIV/AIDS                     | • Bloodborne (direct contact with blood or body substances) | • Standard precautions  
• Transmission based precautions may be required where complicating conditions (eg tuberculosis) are present.  
• Chemoprophylaxis should be considered after needlestick injury | • In cases of needlestick injury, counsel pregnant HCWs about risks of using zidovudine (ZDV)  
• HCWs performing Exposure Prone Procedures have a responsibility to know their HIV status  
• Blood exposure testing protocol applies |
| Influenza                    | • Respiratory (droplet spread)  
• Transmission based precautions (droplet transmission) | • Single room or cohort placement in cases of outbreaks, particularly for children and elderly patients  
• Infected HCWs should not be in contact with patients | • Annual immunisation is recommended for HCWs |
<table>
<thead>
<tr>
<th>Disease</th>
<th>Mode of transmission</th>
<th>Precautions</th>
<th>Immunisation and testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measles Respiratory</td>
<td><em>(Airborne and droplet spread and direct contact with infected throat or nasal secretions)</em> Highly communicable</td>
<td><em>Transmission based precautions (airborne and droplet transmission), with a well-fitting P2 particulate respirator to be worn</em>&lt;br&gt;<em>A negative pressure single room, with the door closed, for infected patients during infectious period.</em>&lt;br&gt;<em>Preclude nonimmune exposed HCWs from direct patient contact from 5 days after first exposure until 21 days after last exposure.</em>&lt;br&gt;<em>Infected HCWs should be precluded from contact with susceptible persons until 7 days after rash appears.</em></td>
<td><em>MMR vaccine should not be given to pregnant women and women should avoid pregnancy for two months after immunisation</em>&lt;br&gt;<em>Screen by verbal medical history.</em>&lt;br&gt;<em>Nonimmune HCWs should be offered MMR vaccine</em></td>
</tr>
<tr>
<td>Parvovirus B19 infection</td>
<td>Respiratory (droplet spread)</td>
<td><em>Transmission based precautions (droplet transmission) for infected people and those at high risk of complications of infection</em>&lt;br&gt;<em>Infected HCWs should take sick leave or be rostered to avoid contact with patients</em></td>
<td><em>Roster to avoid contact with infected patients during the first half of the pregnancy term of nonimmune HCWs</em></td>
</tr>
<tr>
<td>Respiratory syncytial virus</td>
<td>Contact (direct oral or indirect with fomites) Respiratory (droplet spread)</td>
<td><em>Transmission based precautions (droplet and contact transmission) — isolate patients from other at-risk patients and cohort manage</em>&lt;br&gt;<em>Infected HCWs should take sick leave or be rostered to avoid patient contact</em></td>
<td></td>
</tr>
<tr>
<td>Rotaviral enteritis</td>
<td>Contact (faecal–oral route) Respiratory (droplet spread)</td>
<td><em>Transmission based precautions (contact transmission) — patients should be isolated from other at-risk patients</em>&lt;br&gt;<em>Hyperimmune bovine colostrum should be given to all patients in ward if several other patients are infected</em>&lt;br&gt;<em>Infected HCWs should be precluded from contact with at-risk patients</em></td>
<td></td>
</tr>
<tr>
<td>Disease</td>
<td>Mode of transmission</td>
<td>Precautions</td>
<td>Immunisation and testing</td>
</tr>
<tr>
<td>---------</td>
<td>---------------------</td>
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<td>------------------------</td>
</tr>
</tbody>
</table>
| Rubella | [Respiratory (droplet spread)](https://example.com)  
  Contact spread | [Transmission based precautions](https://example.com)  
  (droplet transmission) and single room.  
  [Preclude nonimmune exposed HCWs](https://example.com)  
  from direct patient contact from seven days after first exposure until 21 days after last exposure  
  [Infected HCWs should avoid contact with susceptible persons until five days after rash appears](https://example.com) | [Risk to nonimmune pregnant HCWs](https://example.com)  
  (congenital deformities in foetus),  
  so roster to avoid contact with rubella infected patients  
  [MMR should not be given to pregnant women; pregnancy should be avoided for two months after immunisation](https://example.com)  
  [Screen by verbal medical history and serology](https://example.com)  
  [Nonimmune HCWs should be offered MMR vaccine](https://example.com)  
  [Test for seroconversion two months after immunisation and reimmunise if seronegative](https://example.com) |
| Varicella–zoster  
(chickenpox and shingles) | **Chickenpox**: Respiratory (airborne) Contact  
  **Shingles (localised)**: Contact  
  **Shingles (disseminated)**: Respiratory (airborne) Contact  
  **Chickenpox and shingles in immunocompromised patients**: Respiratory (airborne) Contact | [Transmission based precautions](https://example.com)  
  (airborne and contact transmission for chickenpox or disseminated shingles; contact transmission for localised shingles)  
  [Preclude nonimmune exposed HCWs](https://example.com)  
  from direct patient contact from 10 days after first exposure to 21 days after last exposure  
  [Infected HCWs should avoid contact with susceptible persons until all lesions are dry](https://example.com)  
  [Immunodeficient HCWs should not be involved in the care of varicella–zoster-infected patients](https://example.com) | [Transmission based precautions](https://example.com)  
  (airborne and contact transmission for chickenpox or disseminated shingles; contact transmission for localised shingles)  
  [Preclude nonimmune exposed HCWs](https://example.com)  
  from direct patient contact from 10 days after first exposure to 21 days after last exposure  
  [Avoid contact unless immune](https://example.com)  
  [Vaccine should not be given during pregnancy and](https://example.com)  
  [Vaccinees should not become pregnant for one month after immunisation](https://example.com)  
  [Screen by verbal medical history and serology](https://example.com)  
  [Nonimmune nonpregnant HCWs should be offered varicella vaccine](https://example.com)  
  [Nonimmune pregnant HCWs should be offered Zoster Immunoglobulin (ZIG)](https://example.com) |
<table>
<thead>
<tr>
<th>Disease</th>
<th>Mode of transmission</th>
<th>Precautions</th>
<th>Immunisation and testing</th>
</tr>
</thead>
</table>
| Viral haemorrhagic fevers (VHF)        | • Mucosal or parenteral exposure to contaminated blood or other body fluids          | • Contact State/Territory quarantine officer.  
• Transmission based precautions (airborne and contact transmission)  
• Special laboratory precautions required – Notify lab before obtaining specimen  
• Advice on management of patients and their body fluids should be obtained from State/Territory health authorities | • Roster pregnant and Immunocompromised HCWs to avoid contact with a possible or confirmed VHF case |
|                                        | • Lassa fever also transmitted by aerosols of contaminated body fluids               |                                                                                                                                                                                                            |                                                                                            |
| Severe acute respiratory syndrome (SARS)| • Early evidence suggests respiratory droplets, direct contact with respiratory secretions, indirect contact with contaminated fomites, fine particle aerosols or faeces | • HCWs should wear gloves, P2 (N95 equiv) masks and long-sleeved disposable gowns  
• Disposable gowns and masks should be discarded as clinical waste  
• Personal eyewear (ie spectacles) should be disinfected using an appropriate process  
• Contaminated fomites should also be disposed of as clinical waste  
• HCWs should wash their hands immediately after seeing patients  
• Patients should be kept in respiratory isolation rooms (negative pressure ventilation)  
• Special precautions are required for procedures such as intubation, suctioning and use of nebulisers.  
• Items used should be single-use and disposed of as clinical waste  
• Immuno-deficient HCWs should not be involved in the care of SARS patients  
• SARS has been associated with some preterm deliveries in Hong Kong | • Vaccine currently not available                                                                 |
<p>| | | | |
|                                        |                                                                                                                                              |                                                                                                                                                                                                            |                                                                                            |</p>
<table>
<thead>
<tr>
<th>Disease</th>
<th>Mode of transmission</th>
<th>Precautions</th>
<th>Immunisation and testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastrointestinal infections</td>
<td>• Contact (faecal–oral route) Airborne transmission of viral gastrointestinal pathogens such as Norovirus</td>
<td>• Standard precautions • Transmission based precautions (contact transmission) for incontinent patients — a single room with ensuite toilet is desirable • Transmission based precautions (droplet) if Norovirus suspected. • Infected HCWs or food handlers with diarrhoea must not attend work. HCWs must be symptom free for 48hrs before returning to work and must supply medical certificate stating same</td>
<td></td>
</tr>
<tr>
<td>Legionellosis</td>
<td>• Aerosolised contaminated water (not person to person)</td>
<td>• Standard precautions</td>
<td></td>
</tr>
<tr>
<td>Listeriosis</td>
<td>• Usually via contaminated foods</td>
<td>• Standard precautions — ensure hygienic food handling practices are maintained</td>
<td>Pregnant HCWs should avoid contact with potentially infective materials and foods</td>
</tr>
<tr>
<td>Meningococcal infection</td>
<td>• Respiratory (droplet spread from nose or throat)</td>
<td>• Transmission based precautions (droplet transmission) for 24 hours after beginning treatment • Standard precautions once treatment is initiated • Rifampicin or related compounds recommended for close contacts (eg mouth-to-mouth resuscitation of an infected person)</td>
<td>Rifampicin not recommended for use in pregnant women • Routine immunisation not recommended for HCWs, except in case of outbreaks</td>
</tr>
<tr>
<td>Pertussis (whooping cough)</td>
<td>• Respiratory (droplet spread)</td>
<td>• Transmission based precautions (droplet transmission) — single room for known cases for at least five days after the start of antibiotic treatment. • Exclude suspected cases from contact with young children and infants, particularly those not immunised • HCWs with pertussis should avoid contact with susceptible patients until five days after the start of effective antibiotic therapy</td>
<td>Immunisation as per current Australian Immunisation Handbook</td>
</tr>
<tr>
<td>Disease</td>
<td>Mode of transmission</td>
<td>Precautions</td>
<td>Immunisation and testing</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>----------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Staphylococcal infection            | • Contact            | • Additional precautions (contact transmission) for MRSA — clean gloves and gown, dedicated or disposable equipment, single room with its own bathroom facilities or cohort patients infected with same strain  
• HCWs with infective lesions should be excluded from clinical contact and food preparation unless lesions fully covered with occlusive dressing.  
• HCWs with predisposing skin conditions should be rostered away from patients with staphylococcus infection | • Routine screening for non-MRSA is not warranted  
• Screen HCWs with exfoliative skin conditions                                                                                                                                   |
| Streptococcal infection             | • Respiratory (droplet spread) | • Standard precautions. If patient is excreting large amounts of the organism, a separate room with its own toilet and bathing facilities should be used.  
• If patient has respiratory tract infection, implement transmission based precautions (droplet transmission)  
• Cover lesion and provide clinical contact HCWs with systemic and local treatment. HCWs with acute streptococcal pharyngitis should receive antibiotic treatment and be rostered off duty for at least the first 24 hours of treatment |                                                                                                                                                                       |
| Tuberculosis Respiratory (Mycobacterium Tuberculosis) | • (Airborne spread) | • Transmission based precautions (airborne transmission) — use a P2 particulate respirator mask  
• Negative pressure single room (see State/Territory tuberculosis guidelines)  
• Tuberculin skin test-positive HCWs (with no previous history of a BCG) should have followed up chest X-ray and clinical review | • (BCG administration is not recommended during pregnancy)  
• Pre-employment and exit screening (tuberculin skin test or Quantiferon Gold test recommended)  
• Regular screening for tuberculin skin test-negative HCWs depending on level of risk  
• BCG of uncertain value but may be offered to tuberculin skin test-negative HCW |
### Transmissible spongiform encephalopathies

<table>
<thead>
<tr>
<th>Disease</th>
<th>Mode of transmission</th>
<th>Precautions</th>
<th>Immunisation and testing</th>
</tr>
</thead>
</table>
| Scabies                         | ▪ Contact (direct skin-to-skin)        | ▪ Transmission based precautions (contact transmission) apply for at least 24 hours after beginning appropriate treatment  
▪ HCWs with scabies should be rostered to avoid patient contact for 24 hours after beginning appropriate treatment | ▪ Consider treating on admission all patients from communities with endemic scabies   |
| Pediculosis (head & body lice)   | ▪ Contact (direct skin-to-skin, hair brushes and accessories) | ▪ Transmission based precautions (contact transmission) apply for at least 24 hours after beginning appropriate treatment  
▪ HCWs with pediculosis should be precluded from direct patient contact until effective treatment has been undertaken | ▪ Consider treating on admission all patients from communities with endemic pediculosis |

**GLOSSARY**
AIDS = acquired immunodeficiency syndrome; BCG = Bacille Calmette–Guerin vaccine; BSE = bovine spongiform encephalopathy; CJD = Creutzfeldt–Jakob disease; CNS = central nervous system; EPP = exposure-prone procedure; HBsAg = hepatitis B virus surface antigen; HBV = hepatitis B virus; HCV = hepatitis C virus; HCW = health care worker; HIV = human immunodeficiency virus; HSV = herpes simplex virus; MMR = measles–mumps–rubella vaccine; MRSA = multi-resistant *Staphylococcus aureus*; NA = not applicable; TSE = transmissible spongiform encephalopathy; ZDV = zidovudine; ZIG = varicella zoster virus immunoglobulin

a **Immunisation:** Some details are provided in the text of Sections 28–29. For further details and the most up-to-date advice, see the latest edition of *The Australian Immunisation Guidelines* (currently NHMRC 2013).

b **Blood incident testing protocol:** Following significant exposure to blood or potentially blood-contaminated secretions, test source for HBsAg, anti-HCV antibodies and anti-HIV antibodies and recipient for anti–HBsAg antibodies, anti-HCV antibodies and anti-HIV antibodies. Retest the recipient at one, three and six months (see Section 23).
**OCCUPATIONAL EXPOSURES**

The greatest risks of occupational exposure to HCWs is that of:
- Needlestick injury and / or
- Blood or other body fluid incidents.

The risk includes acquisition of Human immunodeficiency Virus (HIV), Hepatitis B Virus (HBV), and Hepatitis C Virus (HCV). Incidents / exposures must be reported immediately through the individual reporting mechanism in each organisation. Initial management must include the removal and washing of contaminated clothing, washing or flushing the injured area with large amounts of water and a medical assessment of the exposure.

Each individual institution must have an Occupational Exposure protocol that incorporated the following processes.

**Initial Management of exposed person**
- Exposed person needs to seek medical assessment
- The level of risk needs to be determined by the mechanism of injury
- A medical officer or a prescribed person educated in exposure counselling will appropriately counsel the exposed person.
- Blood should be taken for HBV antibody testing.
- This sample must be stored for 12 months to enable HIV and HCV testing to be carried out at a later date if required.
- HCWs who do not wish to be tested may have their blood sample stored as above only.
- If the source is HBV, HCV and HIV negative then no further follow up is required. If there is a reason to suspect the recipient is at high risk of seroconversion then follow up must continue for a period of 6 months. Refer to individual facility protocols.

**Initial Management if source person known**
- The source person should be informed and asked to consent to;
  - HBsAg (Hepatitis B surface antigen)
  - HIV antibodies and
  - HCV antibodies with appropriate counselling included.

This must be attended by the treating medical officer or a prescribed person educated in blood borne virus counselling and NOT by the exposed person.

- Organisations can appoint an authorised person under the compulsory testing Section 120A to 120D of the Health Act when consent is unable to be given due to circumstances such as unconsciousness or incapacity to provide consent.

**Initial Management if source person unknown**
- If the source is unknown or the source person refuses consent the recipient should be tested for:
  - HBV antibodies
  - HIV antibodies and
  - HCV antibodies

For follow up testing and treatment modalities see individual organisational Policy and Protocol on *Staff Health*. 
Chapter Three

MULTIRESISTANT ORGANISMS (MROs)

The most important antibiotic resistant organisms are:

- Multi Resistant *Staphylococcus aureus* (MRSA)
- Vancomycin Intermediate Resistant *Staphylococcus aureus* (VISA)
- Vancomycin Resistant *Enterococcus faecium or faecalis* (VRE)
- Multi-resistant Gram negative Bacteria including extended spectrum Beta Lactamase (*ESBLs*), Metallo Beta Lactemases (*MBLs*)
- Multi Resistant *Clostridium difficile*

MRSA is the most prevalent of these organisms. These organisms are not necessarily more virulent but because of their resistance patterns are more difficult to treat if infection occurs. Several of these organisms have been shown in vivo to survive for 5 – 10 days on inanimate surfaces. Terminal cleaning between patients is therefore a mandatory precaution. Predominantly these organisms are spread via contact and HCWs are the mode of transport. Transmission based precautions are required because of the potential for mutation between organisms.

See table 3.1

*Note: Please consult own health organisations policy or consult your Infection Control Consultant (ICC) as there is no consensus on standards at this time.*
### TABLE 3.1 PRECAUTIONS FOR THE PREVENTION OR TRANSMISSION OF MULTiresistant ORGANISMS

<table>
<thead>
<tr>
<th>Organism</th>
<th>Mode of transmission</th>
<th>Transmission Based Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MRSA</strong></td>
<td>Droplet or Contact – HCWs including Medical Officers hands. More common in:</td>
<td>Contact Precautions –</td>
</tr>
<tr>
<td></td>
<td>• Tracheostomy sites</td>
<td>• Gloves if handling any body fluid</td>
</tr>
<tr>
<td></td>
<td>• Chronic leg ulcers</td>
<td>• Isolation only if droplet or wounds with heavy exudate that is difficult to contain</td>
</tr>
<tr>
<td></td>
<td>• Wounds and</td>
<td>• Mask if droplet</td>
</tr>
<tr>
<td></td>
<td>• Rectal and perineal area</td>
<td></td>
</tr>
<tr>
<td><strong>VISA</strong></td>
<td>Contact – HCWs including medical officers hands. More common in:</td>
<td>Contact Precautions –</td>
</tr>
<tr>
<td></td>
<td>• Tracheostomy sites</td>
<td>• Isolation single room with own ensuite</td>
</tr>
<tr>
<td></td>
<td>• Chronic leg ulcers</td>
<td>• Disposable gowns and gloves single use only</td>
</tr>
<tr>
<td></td>
<td>• Wounds and</td>
<td>• Patient dedicated equipment to be cleaned and/or sterilised on patient discharge</td>
</tr>
<tr>
<td></td>
<td>• Rectal and perineal area</td>
<td>• Terminal cleaning of room at discharge with hypochlorite solution. Room unavailable until completion of this task.</td>
</tr>
<tr>
<td><strong>VRE</strong></td>
<td>Contact - Often colonising the bowel. Patients at increased risk include:</td>
<td>Contact Precautions –</td>
</tr>
<tr>
<td></td>
<td>• Critically ill</td>
<td>• Isolation single room with own ensuite</td>
</tr>
<tr>
<td></td>
<td>• Immunosuppressed</td>
<td>• Disposable gowns and gloves single use only</td>
</tr>
<tr>
<td></td>
<td>• Intra-abdominal or thoracic procedures</td>
<td>• Patient dedicated equipment to be cleaned and/or sterilised on patient discharge</td>
</tr>
<tr>
<td></td>
<td>• Have a Central catheter</td>
<td>• Terminal cleaning of room at discharge with hypochlorite solution. Room unavailable until completion of this task.</td>
</tr>
<tr>
<td></td>
<td>• Prolonged length of stay</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Recently treated with broad spectrum antibiotics or have received vancomycin.</td>
<td></td>
</tr>
<tr>
<td><strong>ESBL</strong></td>
<td>Contact – HCWs including medical officers hands.</td>
<td>Contact Precautions –</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Where there are other patients at risk.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Isolation single room with own ensuite</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Disposable gowns and gloves single use only</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Patient dedicated equipment to be cleaned and/or sterilised on patient discharge</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Terminal cleaning of room at discharge with hypochlorite solution. Room unavailable until completion of this task.</td>
</tr>
</tbody>
</table>

**References**


Department of Health, Victoria, Australia
Assessment Task
Transcribe answers onto the following answer sheet, not onto the Assessment Task.

Question 1 The single most important activity to prevent cross-infection is
A. Vacuuming on a regular basis
B. Hand hygiene
C. Wearing a face mask while on wards/units
D. Restricting access to the facility so no sick people get in.

Question 2 Complete pat drying of your hands after washing them with soap and water is just as important as washing your hands
A. True
B. False

Question 3 Hand hygiene should reflect the 5 moments of hand hygiene which includes
A. Before and after each patient contact
B. Before and after a procedure or blood or body fluid exposure
C. After contact with the patient’s environment
D. Before and after using gloves
E. All of the above

Question 4 If you have a break in your skin, whilst at work you should
A. Leave the skin break uncovered to air
B. Cover the skin break with a cotton dressing
C. Cover the skin break with an occlusive waterproof dressing

Question 5 Personal Protective Equipment (PPE) consists of
A. Gloves
B. Protective eyewear (Safety Goggles/Face Shield)
C. Face mask
D. Apron/gown
E. All of the above

Question 6 When should Personal Protective Equipment (PPE) be worn?
A. At all times
B. Taking vital signs from a patient
C. If there is potential risk of contact with any blood and body fluids (except sweat) regardless of whether they contain visible blood, or when transmission based precautions are in use.

Question 7 Who should wear Personal Protective Equipment?
A. Nurses
B. Doctors
C. Doctors and Nurses
D. Housekeeping staff
E. All healthcare workers when there is a potential risk of contact to blood and body fluids or communicable diseases.
Question 8  Standard Precautions are used to prevent the spread of microorganisms, protect patients and health care workers and include:

A. Performing hand hygiene and ensuring personal hygiene
B. Appropriate use of personal protective equipment to provide a barrier to contact with blood, body fluids, non-intact skin or mucous membranes
C. Immunisation of all health care workers and post exposure follow up
D. Use aseptic technique to reduce patient/client exposure to microorganisms
E. Manage sharps, blood spills and environmental cleaning to maintain a safe environment
F. Appropriate provision of food and linen services
G. All of the above

Question 9  Which of the following events can be classed as an occupational exposure?

A. A body splash into the eye or mouth
B. A body fluid contact with a break in the skin
C. Penetration of the skin with a contaminated sharp
D. All of the above

Question 10  General Waste is NOT disposed of into:

A. Yellow clinical waste bins
B. Purple cytotoxic bins
C. Burgundy/Orange anatomical bins
D. Any of the above

Question 11  Sharps are disposed of into:

A. Yellow plastic-lined bins
B. Yellow rigid walled containers
C. Clear plastic-lined bins

Question 12  If you were to find a used needle within the hospital grounds, you would

A. Notify your supervisor immediately
B. Ignore it and hope someone else will dispose of it
C. Take a sharps disposal unit, or a rigid walled container that is not fragile to the needle location. Carefully handle the sharp and dispose of it into the container and wash your hands. Report.
D. Carefully pick up the needle and carry it to the nearest sharps container, dispose of it and wash your hands

Question 13  Clinical waste (non-sharps) is disposed of into:

A. Yellow bags with internationally recognised black biohazard symbol
B. Clear plastic-lined bins
C. Purple bins with telophase symbol
D. Black plastic-lined bins

Question 14  Cytotoxic Waste is disposed of into:

A. Yellow bins with internationally recognised black biohazard symbol
B. Purple bins/bags with internationally recognised telophase cytotoxic symbol
C. Clear plastic-lined bins
D. Black plastic-lined bins
Question 15 When cleaning blood and body fluids spills, Personal Protective Equipment (PPE) should be worn

A. Whenever you perceive you may be at risk of coming into contact with the blood or body fluid
B. At all times

Question 16 Transmission Based precautions are tailored to the particular infectious agent involved and the mode of disease transmission. Transmission based precaution categories include:

A. Airborne, Contact and Droplet precautions
B. Airborne precautions only
C. Droplet precautions only
D. Contact precautions only
E. Airborne and Droplet precautions only

Question 17 Transmission based precautions are used to provide barriers to prevent or interrupt the transmission when a patient has a known or suspected disease that cannot be contained by Standard Precautions alone

A. True
B. False

Question 18 Implementing Transmission based precautions is a means for alerting people entering an isolation area of the need to wear particular items such as gowns and masks, to prevent disease transmission. It also isolates the infectious source to prevent transmission of the infectious agent to susceptible people in the health care setting

A. True
B. False

Question 19 When cleaning skin with alcohol/chlorhexidine based products prior to performing an invasive procedure we must wait

A. 15
B. 10
C. 1 minute
D. until dry

Question 20 Some diseases require observation of more than one category of additional precautions to prevent transmission (ie. Airborne and Contact precautions).

A. True
B. False

Question 21 Do Contact precautions include contaminated objects and surfaces in the patient’s environment?

A. Yes
B. No
Question 22 Under what conditions would a staff member be required to wear a mask?

A. In droplet or airborne precautions rooms.
B. When there is potential exposure to blood or body fluids.
C. When they are in an operating room
D. All of the above
E. A and B only

Question 23 Droplets are generated when the source person:

A. Coughs & Sneezes
B. Talks
C. Is being suctioned
D. Is having a bronchoscope
E. All of the above
F. A and C only

Question 24 Diseases transmitted via the airborne route can remain suspended in the air for long periods of time?

A. True
B. False

Question 25 The type of mask to be worn to prevent the inhalation of Mycobacterium tuberculosis that is spread via the airborne route is called

A. A surgical mask
B. A well fitted, tight N95/P2 mask

Question 26 What type of precautions would you use during a gastroenteritis outbreak?

A. Airborne precautions
B. Droplet precautions
C. Contact precautions
D. Standard precautions
E. Airborne and Standard precautions
F. Contact and Standard precautions

Question 27 What precautions would you use on a 25-year-old male with HIV without opportunistic infection?

A. Airborne precautions only
B. Droplet and Standard precautions only
C. Standard precautions only
D. Contact and Droplet precautions only
E. Standard, Contact and Droplet precautions

Question 28 What type of precautions would you use on a person who has an MRSA wound infection that has purulent discharge?

A. Contact precautions only
B. Droplet precautions only
C. Standard precautions only
D. Airborne and Contact precautions
E. Standard and Contact precautions
Question 29  What precautions used in conjunction with Standard Precautions would you use on an elderly man with active Clostridium Difficile?

A. Airborne and Contact precautions  
B. Droplet and Contact precautions  
C. Airborne and Droplet precautions  
D. Contact precautions

Question 30  Multi resistant organisms are an increasing threat and may survive up to 10 days in an inanimate environment.

A. True  
B. False

Question 31  What is the most important thing all clinical staff can do to minimise the risk of spreading MROs?

A. Observe the 5 moments of hand hygiene  
B. Wear mask and gloves when attending to patient  
C. Dispose of wastes in contaminated waste containers  
D. Sterilise all equipment

Question 32  All patients who are infected with MROs must have disposable eating utensils

A. True  
B. False

Question 33  Uniforms should be:

A. Clean and changed daily  
B. Changed at least weekly  
C. Washed and worn until physically contaminated  
D. Covered by a gown which can be reused each shift

Question 34  Which of the following statements is NOT true?

A. Linen should be placed in an appropriate collection bag at place of generation  
B. Linen should be sorted in patient care areas  
C. Bags should only be ¾ filled so that they can be sealed and for ease of transport  
D. Soiled and clean linen should be stored and transported separately

Question 35  Chickenpox/ Shingles is spread via contact with vesicle fluid or small respiratory droplets suspended in the air. What precautions above Standard precautions are required to be implemented?

A. Airborne precautions only  
B. Airborne and Contact precautions  
C. Droplet precautions only  
D. Contact precautions only
Question 36 If you are not immune to chickenpox and are exposed to a person who has chickenpox or someone who has shingles, what should you do?

A. Notify the Staff Health Officer and stay off work.
B. Notify staff health who will check you immunity and follow protocols
C. Come to work as usual, leaving the lesions uncovered to dry out
D. Wait to see if you get sick.

Question 37 If you have a herpes simplex lesion, you should?

A. Come to work as usual and be meticulous with hand hygiene.
B. Alert unit manager so that you are not requested to work with neonates or immunocompromised patients
C. Cease work immediately
D. A & B

Question 38 Having the influenza vaccine cannot give you the flu.

A. True
B. False

Question 39 It is possible to still get influenza after being vaccinated because:

A. The vaccine can give you influenza
B. The virus strains contained in the vaccine may differ from the strains circulating in the community
C. Protection does not occur until 10-14 days after immunisation
D. B and C only

Question 40 Which one of the following statements is true?

A. Blood pressure cuffs do not require cleaning between patients unless patients have an open arm wound
B. Tympanic thermometers do not need cleaning if you use a cover
C. Oximeter probes are not to be cleaned with disinfectant
D. All shared equipment used on patients should be cleaned between each use.
E. Only equipment used on known infectious patients requires cleaning between uses.

Question 41 As a health care worker, if you have had gastroenteritis you should not return to work until:

A. You feel better and are able to meet hand hygiene requirements
B. You have had no diarrhoea/vomiting for 48 hours
C. You have had no diarrhoea/vomiting for 24 hours
D. You have stopped vomiting

Question 42 HCWs diagnosed with pertussis (whooping cough)

A. Are contagious until they have had five days antibiotic therapy
B. Are not contagious once the cough has developed
C. Require immunoglobulin
D. None of the above
Question 43  Scabies is spread by direct skin to skin contact. Application of Contact Precautions for at least 24 hours after commencement of appropriate treatment is necessary.

A. True
B. False

Question 44  A Multi-Resistant Organism (MROs) patient has just being discharged from your unit. Does this patient’s room require terminal cleaning as per your organisation’s protocol?

A. Yes
B. No

Question 45  Gloves may be reused when:

A. They have been decontaminated with alcohol based handrub
B. When they are used on the same patient for more than one task
C. They are used in long term or nursing home patients
D. When the infectious organism is VRE
E. None of the above
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1 |   |   |   |   |   |   |   |   |   | 26 |   |   |   |   |   |   |   |   |   |   |   |
| 2 |   |   |   |   |   |   |   |   |   | 27 |   |   |   |   |   |   |   |   |   |   |   |
| 3 |   |   |   |   |   |   |   |   |   | 28 |   |   |   |   |   |   |   |   |   |   |   |
| 4 |   |   |   |   |   |   |   |   |   | 29 |   |   |   |   |   |   |   |   |   |   |   |
| 5 |   |   |   |   |   |   |   |   |   | 30 |   |   |   |   |   |   |   |   |   |   |   |
| 6 |   |   |   |   |   |   |   |   |   | 31 |   |   |   |   |   |   |   |   |   |   |   |
| 7 |   |   |   |   |   |   |   |   |   | 32 |   |   |   |   |   |   |   |   |   |   |   |
| 8 |   |   |   |   |   |   |   |   |   | 33 |   |   |   |   |   |   |   |   |   |   |   |
| 9 |   |   |   |   |   |   |   |   |   | 34 |   |   |   |   |   |   |   |   |   |   |   |
|10 |   |   |   |   |   |   |   |   |   | 35 |   |   |   |   |   |   |   |   |   |   |   |
|11 |   |   |   |   |   |   |   |   |   | 36 |   |   |   |   |   |   |   |   |   |   |   |
|12 |   |   |   |   |   |   |   |   |   | 37 |   |   |   |   |   |   |   |   |   |   |   |
|13 |   |   |   |   |   |   |   |   |   | 38 |   |   |   |   |   |   |   |   |   |   |   |
|14 |   |   |   |   |   |   |   |   |   | 39 |   |   |   |   |   |   |   |   |   |   |   |
|15 |   |   |   |   |   |   |   |   |   | 40 |   |   |   |   |   |   |   |   |   |   |   |
|16 |   |   |   |   |   |   |   |   |   | 41 |   |   |   |   |   |   |   |   |   |   |   |
|17 |   |   |   |   |   |   |   |   |   | 42 |   |   |   |   |   |   |   |   |   |   |   |
|18 |   |   |   |   |   |   |   |   |   | 43 |   |   |   |   |   |   |   |   |   |   |   |
|19 |   |   |   |   |   |   |   |   |   | 44 |   |   |   |   |   |   |   |   |   |   |   |
|20 |   |   |   |   |   |   |   |   |   | 45 |   |   |   |   |   |   |   |   |   |   |   |
|21 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|22 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|23 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|24 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|25 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
Regional Infection Control Evaluation Form

Date ________________

How much time was taken to complete the Infection Control educational resource package.

Please indicate your response to each of these statements by ticking the appropriate box and return to Infection Control Consultant

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Overall, I found this package worth while</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>2. The way in which the package was presented made it easy to understand</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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</tr>
<tr>
<td>3. My knowledge of this topic was improved on completion</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<td>4. My knowledge in this area has been enhanced</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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</tr>
<tr>
<td>5. The resources provided were sufficient for me to answer the assessment task adequately</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<td>□</td>
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<tr>
<td>6. I would recommend Infection Control educational resource package.</td>
<td>□</td>
<td>□</td>
<td>□</td>
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</table>

Comments (Optional)
__________________________________________________________
__________________________________________________________
__________________________________________________________

Thank you for taking the time to complete this evaluation. Your comments are valued and appreciated. Please return this form to the Clinical Nurse Educator.