

4. Infection control measures

Apart from general hygienic practices and vaccination, staff of institutions should also adopt specific infection control measures against communicable diseases. The measures fall under two main categories:

- Standard precautions
- Transmission-based precautions

In addition, isolating people with specific communicable diseases, urging visitors to observe infection control rules and nursing high-risk person with greater caution, can minimise the risk of communicable disease outbreak in an institution.

4.1 Standard precautions

Standard precautions are based on the concepts that all blood, urine, faeces, excreta, saliva, sputum, vomitus, secretions from non-intact skin, wounds and mucous membrane should be treated as potentially infectious. Everyone should take appropriate protective measures when coming into contact with them.

These include:

- Hand hygiene
- Respiratory hygiene and cough manners
- Use of personal protective equipment
- Proper cleansing and disinfection of used or exposed articles
- Prevention of sharps injury
- Waste management

4.1.1 Hand hygiene

Please refer to section 3.1.1 Hand hygiene

4.1.2 Respiratory hygiene and cough manners

Please refer to section 3.1.6 Respiratory hygiene and cough manners

4.1.3 Use of personal protective equipment (PPE)

Personal protective equipment is the barrier that aims at protecting skin and mucous membranes from exposure to potentially infectious materials thus minimise the risk of being infected. They include gloves, surgical mask (also called facemask), protective gown, goggles, face shield and cap.

According to the occupational safety requirement, managements are responsible for ensuring appropriate PPE are provided to staff.

Staff should learn how to select and use appropriate PPE according to the risk assessment of nursing procedures and the infectious diseases situations.



個人防護裝備的穿著次序

Wearing PPE Step by Step



1 洗手
Wash Hands



2 戴上口罩
Put on Mask



3 戴上護眼罩/全面罩
(如需要)及保護帽
Put on Eye Protection/
Face Shield (if necessary)
and Disposable Cap



4 穿上保護衣
Put on Gown



5 戴上手套
Put on Gloves

注意：須視乎風險評估而選擇適當的防護裝備
N.B. : Selection of PPE should be based on risk assessment



個人防護裝備的脫掉次序

Removing PPE Step by Step



1 脫掉手套
Remove Gloves



2 洗手
Wash Hands



3 脫掉保護衣
Remove Gown



4 洗手
Wash Hands



5 脫掉保護帽及
護眼罩/全面罩
最後才脫掉口罩
Remove Disposable
Cap & Eye Protection/
Face Shield
Finally Remove Mask



6 再洗手
Wash Hands Again

注意：請將即棄防護裝備棄置於有蓋廢物箱
N.B. : Disposable PPE should be properly
discarded in dustbin with lid



A. Gloves

- Wear gloves when handling blood, body tissues, excreta, body fluid, secretion or contaminated waste.
- Wear gloves when touching mucosa or wounds.
- Remove gloves and perform hand hygiene immediately after each task or procedure to prevent cross-contamination between different body sites and transmission of infective agents to other person or environment.
- Discard used surgical or examination gloves. Do not wash or disinfect them for reuse.
- Do not double-gloving.

B. Surgical mask (also called facemask)

- Select three-layer designed surgical masks (facemask) for infection control purpose.
- Encourage person with respiratory symptoms to wear surgical mask to reduce spread of droplets to surrounding area.
- Wear mask when taking care of residents with respiratory symptoms.
- Wear mask properly to ensure optimal protection.

C. Protective gown

- Put on long-sleeved protective gown to protect skin, personal clothing or uniforms from soiling with respiratory droplets, blood, body fluid, secretion, urine, faeces or infectious material during the process of care.
- Remove protective gown after caring of residents or when it is soiled by blood or other potentially infectious fluid.
- Take off soiled protective gown carefully and perform hand hygiene immediately.

D. Goggles and face shield

- Put on goggles, face shield, mask and water-repellent gown to enhance protection during anticipated splashing situations.

E. Cap

- Wear cap to hold all hair inside to enhance protection during anticipated splashing situations.

4.1.4 Cleansing and disinfection of used or exposed articles

- Handle used or exposed instruments and articles carefully as they may become soiled by infective agents.
- Ensure used or exposed instruments and articles are cleansed thoroughly before storage or subsequent use.
- Cleanse all visible soils before disinfection.
- Wipe items such as electrical and electronic equipment with alcohol since they will be damaged by soaking in aqueous solution.
- Ensure the disinfectant reaches all surfaces, including internal surfaces of lumens.
- Replace articles with disposable items when they cannot be cleansed or disinfected properly.
- Please refer to Appendix G for the details on cleansing and disinfection of commonly used medical items and articles in RCHDs.

4.1.5 Sharps disposal and prevention of sharps injury

- Always take precautions to prevent sharps injury.
- Use recapping devices when needed.
- Dispose sharps directly into a puncture-proof and spill-proof container which is labelled with “Sharps Box” and “Biohazard”.
- Seal sharps box when it is 3/4 full.
- Pack the sharps box in a well-fastened clinical waste bag by using ‘swan-neck’ sealing method with a warning sign of “Beware of Sharps” for disposal.

4.1.6 Clinical waste disposal

- Separate clinical waste (e.g. used needles and gauze soaked with blood) from domestic waste.
- Pack and label clinical waste properly in colour-coded bags with biohazard signs.
- Wash hands thoroughly after handling clinical waste.
- Store clinical waste securely before collected by licensed clinical waste collector.
- Contact the clinical waste collector when there is substantial amount of clinical waste.
- Keep disposal record of clinical waste properly.
- Enquiry the Environmental Protection Department (EPD) at hotline 2838 3111 or visit the website of EPD for more information <www.epd.gov.hk/epd/clinicalwaste/nonflash/eindex.html>.

4.2 Transmission-based precautions

Apart from standard precautions, when the infectious agent and its modes of transmission are known, specific preventive measures should be adopted. Some diseases can be transmitted by more than one mode. To prevent the spread of such diseases, combined preventive measures should be considered.

4.2.1 Contact precautions

Contact precautions MRSA infection, Acinetobacter infection, Acute conjunctivitis, Head lice, Scabies, Gastroenteritis



- Practise hand hygiene stringently
- Wear PPE depend on the nature of contact, e.g.:
 - ◆ Gloves, apron or gown for lifting
 - ◆ Mask, gloves and apron for bed-making
- Cleanse or disinfect used items before subsequent use.
- Increase the frequency of environmental cleansing and disinfect all frequently-touched surfaces with 1 in 49 diluted household bleach, leave for 15-30 minutes before rinsing with water and wiping dry.
- Keep infected residents in a partition or a room as advised by doctors.

4.2.2 Droplet precautions

Droplet Precautions Influenza, SARS, Avian influenza,



- Let more fresh air in, e.g. open more windows or switch on exhaust fans.
- Practise hand hygiene stringently.
- Keep social distance, at least one metre between residents.
- Advise person with respiratory symptoms to wear mask to reduce spread of droplets to surrounding area.
- Educate and assist residents to maintain cough manners.
- Advise carers to wear masks when they are working within 2 metres of the infected; or to wear masks, face shields and put on gowns for certain coughing- or vomiting-induced procedures.
- Increase the frequency of environmental cleansing and disinfect all frequently-touched surfaces with 1 in 49 diluted household bleach, leave for 15-30 minutes before rinsing and wiping dry.
- Arrange a separate room for infected residents.

4.2.3 Airborne precautions

Airborne precautions

Pulmonary tuberculosis (TB) (smear positive),
Chickenpox,
Measles



- Get vaccinated for vaccine-preventable diseases like measles.
- Identify person with airborne infection and arrange prompt medical consultation.
- Separate the infected resident from others before transfer. Room isolation is required.
- When entering the room, non-immunised staff and carers may wear N95 masks or respirators for their own protection.
- Advise the infected to maintain cough manners and wear mask unless contraindicated.
- Practise stringent hand hygiene.

4.3 Visitors

- Advise visitors to comply with infection control measures, including:
 - Perform hand hygiene before and after visits.
 - Maintain cough manners.
 - Beware of their own health conditions.
 - Avoid visiting RCHDs if recently exposed to infectious disease or having any sign or symptom of infectious diseases, e.g. fever
 - Wear surgical masks when having respiratory symptoms.
 - Write down their contact information in the visiting record as requested by the institution or the Department of Health.
 - Follow instructions, e.g. wearing appropriate PPE.
- Inform visitors when the institution is having an outbreak and they should refrain from visiting as advised by the Department of Health. They may contact the residents by other means such as by telephone.

4.4 Isolation measures

Whenever a resident is suspected to have a communicable disease, doctor should be consulted early for isolation advice. For some highly contagious diseases, room isolation is strongly recommended.

- Reserve a designated area or room for the isolation purpose. It should not be used for other purpose.
- Implement appropriate protective measures, including hand hygiene, wearing mask and the use of appropriate PPE when caring residents in the designated area or room.
- Attend to the physical and psychological needs of the isolated residents to reduce their sense of loneliness.

4.5 Prevention of healthcare-associated infections

In addition to the above preventive measures, proper nursing protocols can further reduce healthcare-associated infections in RCHDs, which include the followings:

4.5.1 Prevention of urinary catheter-associated infections

Residents requiring indwelling urinary catheter are exposed to a higher risk of urinary tract infections. Risk-reducing methods include:

- Insert or change urinary catheter by a qualified nurse.
- Perform hand hygiene thoroughly before and after handling urinary catheter.
- Encourage residents to drink plenty of water to dilute urine and to optimise urine flow when there is no medical contraindication.
- Check regularly if residents have malaise, fever, cloudy and smelly urine. If so, seek medical consultation promptly.
- Always place urine bag below the bladder level to avoid back flow of urine which may lead to urinary tract infection.
- Clamp drainage tube before raising urinary bag above the bladder level, e.g. change of position.
- Do not allow the outlet of urine bag touching the floor.
- Prevent kinking or sagging of urinary catheter to ensure free flow of urine.
- Do not disconnect urinary bag from the catheter. It should be changed together with a new catheter. If deemed necessary, perform hand hygiene and disinfect the connection part with 70% alcohol swab before and after disconnection.
- Use liquid soap and water for daily cleansing of urethral opening and removing debris from the surface of urinary catheter during bathing or showering.

4.5.2 Prevention of aspiration pneumonia associated with nasogastric tube feeding

Residents requiring nasogastric tube feeding have higher risk for aspiration pneumonia. Risk-reducing methods include:

- Change nasogastric tube regularly by a qualified nurse.
- Observe proper feeding procedures.
- Prop up the resident in a sitting position of at least 30 degrees.
- Make sure nasogastric tube is in right position before feed.
- Ensure each resident has his/her own feeding set.
- Flush feeding set with water after each feed and air dried before putting it into clean container for the next use.
- Disinfect reusable feeding bottle daily, e.g. boiling it for 10 minutes after cleansing.
- Discard disposable feeding tubing daily (Appendix G).
- Maintain oral and nasal hygiene. Oral cavity should be checked and cleansed at least three times a day.

4.6 Prevention of infection for persons with cognitive impairment

Residents with cognitive impairment may develop difficulties in comprehension, expression and self-care. Therefore, they cannot cooperate with staff in performing preventive infection control measures.

- For residents who retain certain degree of cognition, staff may guide or assist them to adopt good personal hygiene to prevent infection.
- For residents with serious cognitive impairment, to ensure proper personal and environmental hygiene, staff should pay extra attention and perform cleansing for them.

4.7 Care of residents recently discharged from hospitals

- Assist the residents to wash their hair, bath and change clothes when they return to RCHD.
- Monitor their health conditions closely.
- Measure their body temperature more frequently for the first few days.
- Advise them to wear surgical masks if they have respiratory symptoms.
- Advise them to observe personal hygiene.