

SWAT MEDICAL COLLEGE

Marghazar Road, Saidu Sharif Swat



COLLEGE/HOSPITAL INFECTION CONTROL AND PREVENTION PROGRAM

APPROVED BY:

Infection Control And Prevention Program

STANDARD INFECTIONN CONTROL PRECAUTIONS

The purpose of this document is to ensure that every staff member understands the importance of and their responsibility for using Standard precautions as a matter of good practice. It is not always possible to identify people who may spread infection to others, therefore precautions to prevent the spread of infection must be followed at all times. These routine procedures are called standard precautions.

Standard Precautions include:

- Hand washing and skin care
- Use of protective clothing
- Safe handling of sharps (including sharps injury management)
- Spillage management

Purpose

Standard precaution are required for most clinical areas of the hospital and hospital staff must know where to find further detailed advice about specific organisms or for situation that can not be covered in this policy. If still in doubt or unclear about an issue, Please contact the Hospital Infection control Nurse on Ext 2666 for help.

1. Hospital acquired infections are a major cause of morbidity and mortality in admitted patients, particularly those in intensive care units. Since the agent and host factors are more difficult to control, interruption in the chain of infection is directed primarily at transmission.
2. All Healthcare staff are responsible for ensuring that any procedure undertaken reduces the risk of infection both to patients and to themselves.
3. In order to reduce the risk of transmission of infection, following measures are implemented at Northwest General Hospital.

These following precautionary measures can be practiced according to the individual patient needs mentioned below;

1. Isolation of patient's in a single room
2. Hand washing/hygiene
3. Masks and protective eye wear
4. Gowns and plastic apron
5. Gloves
6. Safe handling of contaminated linen
7. Safe management of contaminated sharps
8. Transportation of Infectious patient to other ward/hospital

9. Cleaning of patient care rooms
10. 10.Safe handling of infectious dead body

1. Isolation of patient's in a single room

Purpose

In general a single room can reduce the possibility of transmission of infectious agent in two ways:

1. Separation of infected patients from susceptible patients to decrease the chance for airborne transmission of infection.
2. As a reminder for healthcare staff to wash their hands before leaving the room and when in contact/handling other patients.

Principles

1. All patients with communicable disease (suspected or confirmed) should be nursed in a single room
2. Patients' with infections that are transmitted by airborne route
3. Patients' with diseases that are highly infectious or are caused by microorganisms that are likely to be virulent when transmitted.
4. If patients' hygiene is poor, for example if patient does not wash hands after touching infective material (faeces, purulent drainage or secretions), contaminates the environment, or shares contaminated articles, such patients' may include patients who have altered mental status.
5. Patients' colonized with microorganisms of special clinical or epidemiologic significance, for example, Multiple Drugs Resistance
Bacteria or Meticillin-resistant Staphylococcus aureus (MRSA) or Beta Hemolytic Streptococcus Group A (BHS-A)
6. Patients' with the same diseases may share a room.

Diseases requiring a single room:

- Bronchiolitis — suspected RSV infection
- Multiple Antibiotics Resistant Bacteria (Acinetobacter species)
- Pulmonary Tuberculosis
- Viral hemorrhagic Fever / Congo Hemorrhagic fever
- Gastroenteritis (food poisoning) due to enteric pathogens
- Hepatitis A, Rota virus, Acute Poliomyelitis
- Meningococcal meningitis

- Chicken pox
- Clostridium difficile
- Immune-compromised

2. Hand Washing /Hygiene

Purpose

Hand washing before and after contact with patient or clinical specimen is the single most important procedure for preventing hospital acquired infections. This must not be neglected even if "NO TOUCH TECHNIQUES" are used or if gloves are worn. Transient colonization of the healthcare workers/staff can also be eliminated by hand washing.

Principles

Hands must be washed with an antiseptic solution /skin cleanser such as "Hibiscrub, Povidine Iodine, antibacterial soap and/or soap and water:

1. Before performing all invasive procedures
2. Before taking care of particularly susceptible patients, such as those who are severely immunosuppressed and newborns.
3. After removal of gloves or other personal protective clothing such as apron or gowns
4. Immediately after situations during which microbial contamination of hands is likely to occur, especially those involving contact with mucous membranes, blood or body fluids, secretions or excretions.
5. After touching inanimate sources that are likely to be contaminated with virulent or epidemiologically important microorganisms, these sources include urinals, bedpans, urine measuring jugs, and secretion collection apparatus.
6. After taking care of an infected patient or one who is likely to be colonized with microorganisms of special clinical or epidemiologic significance, for example Multi-drug resistant coliforms or Meticillin-resistant Staphylococcus aureus (MRSA).
7. Between contacts with different patients particularly in critical care units.
8. An alcohol hand rub should be used when an emergency situation arises whereby there is no possibility to perform hand washing.
9. Nails should be kept clean and short. Rings and wrist watches should be removed prior to hand washing

Routine Hand washing Technique:

1. A vigorous washing with soap and running water for at least 20-30 seconds is recommended.
2. Wet hands up to the wrist prior to application of soap.
3. Lather well, rub all the parts of both hands.
4. Rinse well and dry hands thoroughly.
5. Turn off water using a paper towel to prevent contamination of hands from faucet.

6. Nails should be kept clean and short. Rings and wrist watches should be removed prior to hand washing.

NOTE:

Alcohol swabs may be used in settings where traditional hand wash or hand washing facilities is inadequate or inaccessible.

3. Use of mask and Protective Eye Wear
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Purpose

Masks are worn to prevent transmission of agents and respiratory droplets through the air.

An ordinary mask rarely affords bacteriological protection to the healthcare staff and patients because of the particular size of the microorganisms concerned.

Where the use of a mask is specified a HIGH EFFICIENCY FILTRATION MASK should be used.

Principles

1. Masks should be used to protect the wearer from inhaling large particle aerosols (droplets) that are transmitted by close contact and generally travel only short distances (about 3 feet), and small particle aerosols (droplet nuclei) that remain suspended in the air.
2. Masks should be worn during procedures that are likely to generate droplets of blood or other body fluids to prevent exposure of mucous membranes of the mouth and nose.
3. Masks in combination with eye protection devices, such as goggles or glasses shall be worn whenever splashes, splatter, spillage or droplets of blood or other potentially infectious materials may be reasonably anticipated.
4. Masks should cover both the nose and mouth with no gaping on the sides
5. Masks should be used only once and become ineffective when moist
6. Masks should not be lowered around the neck and reused
7. Talking causes droplet dispersion. This should be kept to a minimum while the mask is being worn.
8. Reusable goggles, glasses, etc may be washed in soap and water when visibly soiled.
9. Respiratory isolation card should be placed at the entrance of a patient room if the patient has an airborne disease
10. All patient with airborne diseases should wear a mask when transported to other department for procedures

4. Use of Gowns and Plastic Aprons

Purpose

To prevent soiling of clothing by blood or other potentially infectious materials

Principles

1. Appropriate protective clothing such as gowns, plastic aprons and lab coats, shall be worn in occupational exposure situations.
2. Protective clothing should not permit blood or other potentially infectious materials to pass through or to reach care giver's clothes or body. If a garment is penetrated by blood or other potentially infectious materials, the *garment should be removed immediately or as soon as feasible.
3. Surgical caps and shoe cover should be worn in instances when gross contamination can be anticipated e.g. autopsies, orthopedic surgery.
4. All personal protective clothing should be removed prior to leaving the work area.
5. Unsterile gown or apron to protect the wearer should be worn.
6. Sterile protective gown should be used to protect the patient when full sterile protection is required.
7. Hands must be thoroughly washed and dried before taking off the gown or aprons

5. Use of Gloves

Purpose

1. To cover hands and prevent transmission of infection
2. to protect care givers from potentially hazardous materials

Gloves reduce the:

1. Possibility for care givers to become infected with microorganisms that are infecting patients.
2. Likelihood for care givers to transmit their own endogenous microbial flora to patients
3. Possibility for care givers to become transiently colonized with microorganisms that can be transmitted to other patients.
4. Inoculums by 50% in case of needle stick injury

Principles

1. Gloves should be worn when in contact with blood, and other potentially infectious materials, mucous membranes, and non-intact skin.
2. Gloves should be worn for vascular access procedures
3. Gloves should be worn when handling or touching contaminated items or surfaces
4. Use sterile gloves for procedures involving contact with sterile areas of the
5. Use non sterile gloves (Latex) for procedures involving:
 - a. Contact with mucous membranes
 - b. Diagnostic procedures that do not require the use of sterile gloves

- c. Emptying drainage bags
- d. Contact suspected or known infected excretions and secretions
- e. Chemicals which are known to cause skin reaction
- 6. Disposable gloves should be replaced as soon as task is completed, or if they are torn, punctured, or when their ability to function as a barrier is compromised.
- 7. Disposable gloves should not be washed or decontaminated for re-use.
- 8. Hands should be washed immediately after gloves are removed.

6. Safe Handling of Contaminated Linen

Purpose

- i. Contaminated linen should be handled gently to prevent aerosols dispersal in the patient care environment.
- ii. Avoid vigorous motion with linen during bed making
- iii. Soiled linen should be handled as little as possible and with minimum agitation.

Principles

Attention can be given to prevent gross microbial contamination of the patient care environment, and persons handling the linen.

1. Prepare hamper bags as follows

Fix a hamper bag in a hamper stand, then red plastic bag over it and then the water soluble isolation bag on top of it. After doing the patient's bed making, sealed/closed the isolation bag with a pink ribbon and then tie the red plastic bag securely with the isolation bag inside it and labeled accordingly for laundry return.

The importance of using Isolation Alginate water soluble and red plastic bag in infected linen disposal is:

- a. The RED color alert the laundry staff that linen is infected.
 - b. The contents of the bag does not have to be handled by the laundry staff for sorting
 - c. The isolation alginate water soluble bag dissolves in hot water and release contents of the bag in the washing machine.
 - d. The cross infection and occupational health hazards associated with sorting contaminated linen is minimized as it is practically possible.
2. Great care must be taken to ensure that irrelevant articles are not put in laundry bags, e.g. incontinent pad, tissue paper, cotton, gloves, etc.
 3. It is the responsibility of the Inpatient/outpatient nursing staff to ensure that soiled linen and infected linen is sealed in the appropriate color coded plastic bag at their level.
 4. It is the responsibility of the Inpatient/Outpatient management to ensure that there is adequate supply of these bags.

5. Keep hamper bag within reach near to the bed.
6. Wear gloves when handling linen soiled with body fluids.
7. Wear plastic apron, if clothing is likely to become soiled.
8. Completely remove all soiled linen from the bed and wash hands before starting bed making.
9. Remove bed linen by gently rolling linen towards center of bed in such a way to contain body fluids if present.
10. Hold linen away from body to prevent contamination of uniform
11. Do not throw dirty linen on floor and don't leave overly filled hamper bags in patient care areas.
12. Soiled mattresses and pillows should not be sent to laundry for washing, but to be given to the housekeeping for disposal with complete form to be filled and submitted for re-issuance to keep par level in balance.
 - Mattresses and pillows should be covered with impervious plastic and should be decontaminated by wiping with a disinfectant and detergent.
 - All soiled linen should be double bagged at the bedside and sealed in RED plastic bag.
 - Hamper bags should not be filled to more than 3/4 of its total capacity.
 - Linen transport cart should be cleaned and disinfected daily or when visibly soiled.
 - Wash hands after handling used linen, hamper and cart.
 - Clean linen should not be kept in patient care areas
 - Clean linen should be transported and stored in a covered linen trolley.
 - Protect your non-intact skin from contamination.
 - Report unprotected exposure to blood and body fluid immediately to Infection Control Officer.

7. Safe Management of Contaminated Sharps

Purpose

1. To provide a safe and efficient means for handling and disposal of needles, syringes, and sharp objects.
2. To guide care givers in the safe use, handling and disposal of used sharps.
3. To promote care givers safety
4. To create a safe environment for patient and other team members

Principles

1. All used sharps are considered contaminated. Contamination occurs as a result of contact with blood or body fluids, chemicals, drugs, etc.
2. Place all used sharps into the puncture resistant sharps container labeled "DANGER", available in all patient care related areas.
3. Dispose needle and syringe as one unit uncapped into the sharps container at the point of use.
4. DO NOT RECAP NEEDLES AFTER USE.
5. Needles removed from IV tubing should be disposed into sharps container immediately.
6. Nursing staff must ensure the replacement of sharps containers when it is 3/4 full.

7. Filled sharps containers should be secured in red plastic bag before being removed by housekeeping staff for incineration.
8. Needles and sharp objects are to be cautiously handled to minimize risk of needle stick injuries.
9. Needles and other sharp objects such as cannulas, scalpels, etc. must not be bent, broken or manipulated by hand.
10. Do not recap contaminated needles unless recapping is unavoidable such as:
 - a. When giving serial injections of a solution for the same patient over a short period of time
 - b. When disposal container is not available due to the unpredictable nature of the patient population (for example, psychiatric patient's room)
 - c. When removal of a contaminated needle is essential in order to replace it with a new sterile needle, for example, collecting anaerobic or blood gases.
11. Use the "scoop method" to recap the needle, or remove needle with forceps and place carefully into sharps container.
12. Acceptable methods of recapping include:
 - a. Hold the cap vertically while the needle is inserted.
 - b. The one handed "scoop method" 1:
 - i. Place cap of needle on a horizontal surface
 - ii. Carefully scoop the cap with the tip of the needle.
 - iii. Carefully grasp cap at the base and secure to the hub of the syringe.
13. Contaminated broken glassware should not be picked up directly with hands. Mechanical means e.g. brush & dust pan should be used.
14. Report immediately all sharps injuries to Infection Control Nurse

To Establish Guidelines For Control Of Infection In Operation Theatre

S.No	Procedure
a.	Entry into OT is not allowed without OT dress, shoes, caps and masks
b.	All OT area is carbolized (Cresol + Soap) dail
C.	OT carbolized after each case
d.	After every week whole OT equipment including furniture is cleaned with Lysol and disinfected with virkon on every Sunday under supervision of in charge OTA
e.	Vaccination of whole OT staff against Hepatitis B
f.	Respiratory equipment, linen, face masks, airways breathing circuits, connection and infusion sets are properly disposed off and never reused
G	To provide training to the staff to improve their knowledge and practice to maintain cleanliness and sterilization
h.	That all OT staff and surgeons dress and wash hands properly
i.	That all the clinical and non clinical waste of OT is disposed off according to the instruction
j.	To co ordinate with the wards in case of infected cases like hepatitis, tuberculosis, MRSA, AIDS etc and to take due care according to the OT protocol
k.	To coordinate with the hospital infection control committee to streamline the infection control procedures
L	Sterilization of instruments, linen, rubber goods will be done under the direct supervision of in charge theatre to whom detailed instructions will be given by MO I/C theatre
m.	Keeping in view the operation list of next day and unforeseen emergencies, sufficient linen and instrument sets will be made available
n.	Gauze will not be cut on floor and clean table will be used for this. Sister OT will supervise this
o	Coordination between theatre and wards will be the responsibility of MO I/C OT or senior nursing officer working in OT