To be kept at Nursing Station Counter in Isolation Ward / Isolation area

SINGHGAD TECHNICAL EDUCATION SOCIETY’S
SMT.KASHIBAI NAVALE MEDICAL COLLEGE &
GEN.HOSPITAL

MANUAL

ISOLATION OF PATIENTS
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SKNMC& GH: ISOLATION MANUAL

a. CRITERIA FOR ISOLATION AND PROCEDURES

Aim:

- To prevent the transmission of pathogenic microorganisms within the hospital.
- To recognize the importance of all body fluids, secretions and excretions in the transmission of nosocomial pathogens.
- To practice adequate precautions for infections transmitted by airborne droplet & contact.
- Measures for reduction of transmission.

b. HAND WASHING:

Frequent hand washing is the most important measure.

1. Patient care Hand wash

Wash hands after touching blood, body fluids, secretions, excretions and contaminated items, whether gloves are worn or not.

Wash hands immediately after gloves are removed.

Wash hands between tasks and procedures on the same patient to prevent cross contamination of different body sites.

Use a plain soap for routine hand washing.

Use antiseptic soap or an alcohol based disinfectant followed by thorough hand washing for accidental skin contamination.

Antimicrobial hand washing products should be used for hand washing before personnel care for newborns and when otherwise indicated during their care, between patients in high-risk units, and before personnel take care of severely immunocompromised patients.
2. Surgical Hand Wash

Procedural hand hygiene includes a full surgical scrub using running water and 4% chlorhexidine scrub solution from the fingertips to the elbow. The scrub should be performed for a minimum of 2 to 3 minutes.

c. GLOVES:

Clean, unsterile gloves may be worn as a protective barrier during procedures. Sterile gloves are worn when sterile procedures are undertaken.

d. PERSONAL PROTECTIVE EQUIPMENT (PPE):

Gowns: A clean, nonsterile, gown is worn to prevent contamination of clothing and skin of personnel from exposure to blood and body fluids. When gowns are worn to attend to a patient requiring barrier nursing, they are removed before leaving the patients environment and hand washing is done.

Masks: This equipment is worn to provide barrier protection. Mask should cover both the nose and the mouth.

e. PATIENT ISOLATION:

Patients are isolated when

a. Suffering from highly transmissible diseases e.g. chicken pox. Patient is placed in a separate room.

b. Infected with epidemiologically important microorganisms such as MRSA, Imipenem resistant Acinetobacter spp.

c. Infected with Viral Hepatitis, Tuberculosis, Infectious Disease.

f. BARRIER NURSING:

The aim is to erect a barrier to the passage of infectious pathogenic organisms between the contagious patient and other patients and staff in the hospital, and hence to the outside world. Preferably, all contagious patients are isolated in separate rooms, but when such patients must be nursed in a ward with others, screens are placed around the bed or beds they occupy.

Cohort nursing may be practiced as re-infection with the same organism is unlikely.
The nurses, attending consultants and visitors must wear gowns, masks, and sometimes rubber gloves and observe strict rules that minimize the risk of passing on infectious agents. Surgical standards of cleanliness in hand washing are observed after they have been attending the patient. Bedding is carefully moved in order to minimize the transmission of airborne particles, such as dust or droplets that could carry contagious material.

Barrier nursing must be continued until subsequent cultures give a negative report.

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CLEANING OF EQUIPMENTS AND ARTICLES:

Contaminated disposable articles are bagged appropriately in leak proof bags and disposed. Critical reusable medical equipment is disinfected or sterilized after use. Non-critical equipment is cleaned and disinfected after use.

a. LAUNDRY

Soiled linen should be handled as little as possible and with minimum agitation to prevent gross microbial contamination of the air and of persons handling the linen.

All soiled linen should be bagged or put into carts at the location where it was used; it should not be sorted or pre-rinsed in patient-care areas.

Linen soiled with blood or body fluids should be deposited and transported in bags that prevent leakage.

b. EATING UTENSILS

Routine cleaning with detergent and hot water is sufficient.

c. TERMINAL CLEANING

Terminal cleaning of walls, blinds, and curtains may be done. Disinfectant fogging is not recommended.

d. CONCEPT OF STANDARD PRECAUTIONS:

They are a set of precautions designed to protect health care workers from exposure to blood borne pathogens. Since the majority of patients infected with HIV/ HBsAg/ HCV are
asymptomatic at the time of presentation all patients are approached as having potentially infectious blood and body fluids. Precautions may vary based on anticipated exposure.

**Features of universal precautions:**

i. Use of Personal protective equipment and gloves (discussed)

ii. Prevention of injury with sharps:

Sharps injuries commonly occur during use of needles and surgical instruments and after use during disposal.

Precautions to be observed:

- Needles should not be recapped, bent or broken by hand.
- Disposable needles & other sharps should be discarded into puncture resistant containers at the site of procedure.
- Sharps should not be passed from one HCW (Health Care Worker) to another. The person using the equipment should discard it. If necessary a tray can be used to transport sharps.
- All sharps containers to be discarded when 3/4\(^{th}\) full.

iii. Hand washing (as mentioned above).

**e. Disinfection of equipment**

Re-use instruments, tubing, etc only after decontamination and sterilization or decontamination, as appropriate (Refer to the chapter on Sterilization and Disinfection).

Do not touch equipment with soiled gloves or gloves used for patient care.

Surfaces of large equipment should be disinfected with a 1:100 dilution of sodium hypochlorite or an approved disinfectant.

Heavy soiled equipment may require additional cleaning with detergent and water.

Gloves must be worn while cleaning the equipment.

**f. Waste disposal:**

Non-plastic items soiled with blood, bloody drainage or potentially infected material must be placed in the yellow biohazard plastic bags.
Items that may tear the bag must not be placed in the plastic bag. (For further details, please refer to the section on ‘Waste disposal’.)

Infected plastic items should be discarded into red bag.

Excreta, blood or body fluids must be emptied down the drain with adequate amount of water.

g. Linen

Linen soiled with blood or potentially infectious body fluid must be placed in a leak proof bag and then sent for autoclaving.

The autoclaved linen is then sent for laundry.

h. Spill clean-up

Cover spills of blood or body fluids with 1% of freshly prepared sodium hypochlorite for 10 minutes. Then mop dry. A second decontamination may be done if required.

Wash the area with detergent and water.

Gloves must be worn during cleanup and decontamination procedures.

No environmentally mediated transmission of HIV has been documented to date.

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PRECAUTIONS

I. Precautions Against Blood Borne Transmission

II. Precautions Against Airborne Transmission

III. Precautions Against Contact Transmission

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(I) PRECAUTIONS AGAINST BLOOD BORNE TRANSMISSION

a. Instruction for wards

i. Admission:

Patients with HIV / HBV / HCV disease but presenting with unrelated illnesses may be admitted in any ward as per existing rules.

Confidentiality shall be maintained with appropriate precautions to prevent nosocomial transmission.

ii. Preparation of patients:

It is the responsibility of the attending physician to ensure that patients testing positive are informed about the result and receive counseling.

The nursing staff will explain to patients, attendants and visitors (when necessary), the purpose and methods of handwashing, body substance and excreta precautions, and other relevant precautions.

iii. Specimens:

Adequate precautions are to be taken while collecting specimens.

The specimens are to be transported in leak-proof containers placed inside a leak-proof plastic cover.

Ensure that the cover and the outside of the container are not contaminated.
iv. Waste disposal:

A separate bin is placed in the patient’s room for infectious waste.

When the bag is 3/4ths full it is sent for disposal.

v. Death of a patient:

Those cleaning the body should use gloves and other protective gear.

Before leaving the ward, the body is bagged as for any case.

(II) PRECAUTIONS AGAINST AIRBORNE TRANSMISSION

These precautions are designed to reduce the risk of airborne and droplet transmission of infectious agents, and apply to patients known or suspected to be infected with epidemiologically important pathogens that can be transmitted by these routes.

a. Components of respiratory isolation:

i. Place the patient in a single / private room with closed doors. Patients with same illness (but no other infection) can be cohorted in one room.

ii. Masks to be worn by those who enter the patient’s room. Susceptible persons should not enter the room of patients known or suspected to have measles or varicella (chicken pox).

iii. Gowns are not routinely necessary. Use gowns if soiling is likely.

iv. Gloves are necessary while handling patients.

v. Hands must be washed after touching the patient or potentially contaminated articles and before taking care of another patient.

vi. Articles contaminated with infective material must be discarded or bagged and labeled before being sent for decontamination and reprocessing.
(III) PRECAUTIONS AGAINST CONTACT TRANSMISSION

Contact isolation precautions are recommended for specified patients known or suspected to be infected or colonized with epidemiologically important microorganisms that can be transmitted by direct contact with the patient (hand or skin-to-skin contact that occurs when performing patient-care) or indirect contact (touching) with contaminated environmental surfaces or patient-care items.

a. Components:

i. Gowns are indicated if soiling is likely.

ii. Gloves are indicated for touching infected material / area

iii. Hands must be washed after touching the patient or potentially contaminated articles and before taking care of another patient.

iv. When possible, dedicate the use of non critical patient – care equipment to a single patient (or cohort of patients infected or colonized with the pathogen requiring precautions) to avoid sharing between patients. If use of common equipment or items is unavoidable, then adequately clean and disinfect them before use for another patient.

Articles contaminated with infective material must be discarded or bagged and labeled before being sent for decontamination and reprocessing

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ISOLATION ROOMS

When an infected patient shares a room with non-infected patients, patients and personnel shall take measures to prevent the spread of infection. Personnel shall wear gloves and wash hands when indicated and ensure that contaminated articles are discarded or returned for decontamination and reprocessing.

a. Isolation policy for special groups of organisms

Methicillin Resistant Staphylococcus aureus (MRSA):

The pathology department shall send an alert to the head of the concerned unit in case the microbiology report ascertains existence of MRSA. Measures will be immediately ascertained by the Hospital Infection Control Committee for isolation of MRSA.

b. Use respiratory (contact with mask) precautions.

i. Accommodate these patients away from those with open wounds or immunocompromised.

ii. Handwashing is the single most important factor in controlling MRSA.

iii. Linen – sheets, pillow cases, and blankets should be changed on a daily basis and more often if soiling occurs. Linen should not be shaken in order to prevent dissemination of micro-organisms into the environment. Linen should be autoclaved before being sent to the laundry. The same will apply to masks, gowns and gloves.

c. Pulmonary tuberculosis:

i. Respiratory precautions should be taken for smear positive tuberculosis patients.

ii. A separate room / area / ward is recommended only for adult patients with sputum positive pulmonary tuberculosis.

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