

**Work Instruction
for
Infection Control
and
Biomedical Waste Management
in
Health and Wellness centre Sub Health Centre**

Prepared by:

Signature & Date

Name of the Health Facility:

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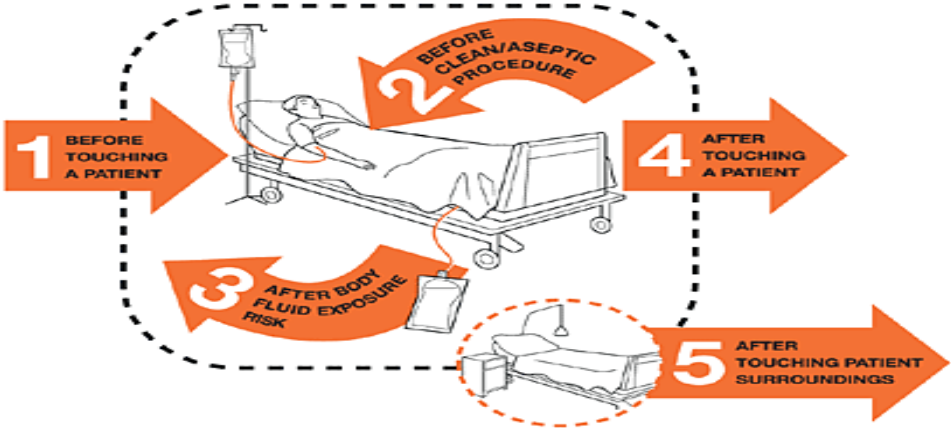
Hospital Infection Prevention & Biomedical Waste Management

Purpose: Overall purpose of this work instruction is to ensure safety of patients and staffs of the health facility, minimize or reduce hospital acquired infections.

Scope: It applies to all the staffs who are involved in infection control activities. It covers 5 (five) components namely Program for infection prevention and Control, Hand Hygiene practices, Standard practices and equipment for personal protection, Disinfection and Sterilization of equipment and instruments and Biomedical Waste Management.

Procedure:

Sl.	Activity/Description
1.	Program for Infection Prevention and Control
1.1	Person is identified to supervise the Sanitation and Hygiene of HWC (SC) and its surrounding area. His/her responsibilities include ensuring cleaning of the facility daily and maintaining housekeeping checklist.
1.2	All staff of the health facility undergo medical health check up at least once in a year and immunization with at least Hepatitis B and TT and records are maintained.
1.3	Regular monitoring of cleanliness & hygiene is done
2.	Hand Hygiene practices
2.1	All staff should be aware of the Five moments of Hand washing i.e., before touching a patient, before Clean/aseptic procedure, after body fluid exposure risk, after touching a patient and after touching patient surroundings.

	
2.2	All staff members should be aware of the 6 (six) steps of handwashing. Wash basin should be made functional with functional drainage pipe, tap, running water, soap. Hand washing posters should be displayed preferably in local language. Wash basin are to be wide and deep enough to prevent splashing and retention of water. Elbow operated tap may be made available. Soap and Alcohol hand rub may be made available for outreach session. 
3.	Standard Practices and Equipment for Personal Protection
3.1	Personal Protective Equipment like Gloves, Mask & Apron are available in adequate quantity. Disposable Gloves, Cap and Mask are not reused.
3.2	Donning and Doffing of PPE (Personal Protective Equipment) 3.2.1 <i>Sequence for donning of PPE</i> is Gown, Mask or respirator, Goggles or face shield and Gloves.

3.2.2 *Donning Gown:* Select appropriate type and size, opening is in the back, secure at neck and waist, if the gown is small, two gowns may be used, gown 1 ties in front and gown 2 ties in back.

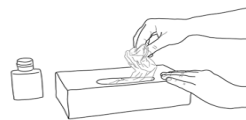
3.2.3 *Donning Mask:* Place over nose, mouth and chin, fit flexible nose piece over nose bridge, secure on head with ties or elastic and adjust to fit.

3.2.4 *Donning Goggles and Face Shield:* Position goggles over eyes and secure to the head using the ear pieces or headband. Position face shield over face and secure on brow with headband. Adjust to fit comfortably.

3.2.5 *Donning Non-sterile Gloves:*

When the hand hygiene indication occurs before a contact requiring glove use, perform hand hygiene by rubbing with an alcohol-based handrub or by washing with soap and water.

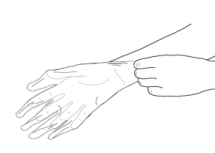
I. HOW TO DON GLOVES:



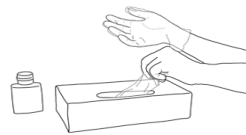
1. Take out a glove from its original box



2. Touch only a restricted surface of the glove corresponding to the wrist (at the top edge of the cuff)



3. Don the first glove



4. Take the second glove with the bare hand and touch only a restricted surface of glove corresponding to the wrist



5. To avoid touching the skin of the forearm with the gloved hand, turn the external surface of the glove to be donned on the folded fingers of the gloved hand, thus permitting to glove the second hand



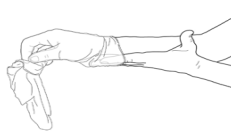
6. Once gloved, hands should not touch anything else that is not defined by indications and conditions for glove use

3.2.6 *Doffing Non-sterile Gloves*

II. HOW TO REMOVE GLOVES:



1. Pinch one glove at the wrist level to remove it, without touching the skin of the forearm, and peel away from the hand, thus allowing the glove to turn inside out



2. Hold the removed glove in the gloved hand and slide the fingers of the ungloved hand inside between the glove and the wrist. Remove the second glove by rolling it down the hand and fold into the first glove



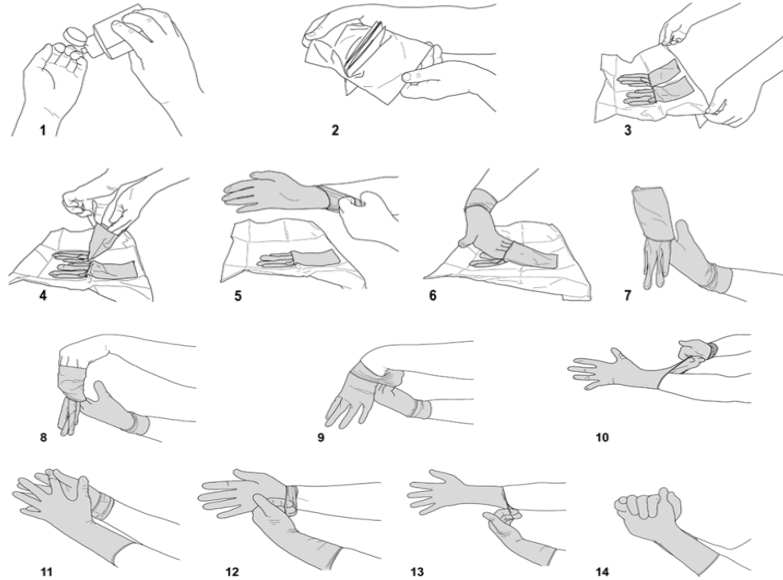
3. Discard the removed gloves

4. Then, perform hand hygiene by rubbing with an alcohol-based handrub or by washing with soap and water

3.2.7 *Donning Sterile Gloves*

The purpose of this technique is to ensure maximum asepsis for the patient and to protect the health-care worker from the patient's body fluid(s). To achieve this goal, the skin of the health-care worker remains exclusively in contact with the inner surface of the glove and has no contact with the outer surface. Any error in the performance of this technique leads to a lack of asepsis requiring a change of gloves.

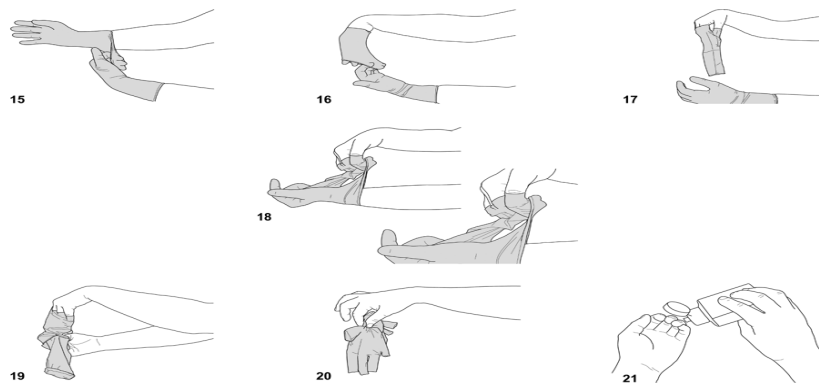
I. HOW TO DON STERILE GLOVES



1. Perform hand hygiene before an "aseptic procedure" by handrubbing or hand washing.
2. Check the package for integrity. Open the first non-sterile packaging by peeling it completely off the heat seal to expose the second sterile wrapper, but without touching it.
3. Place the second sterile package on a clean, dry surface without touching the surface. Open the package and fold it towards the bottom so as to unfold the paper and keep it open.
4. Using the thumb and index finger of one hand, carefully grasp the folded cuff edge of the glove.
5. Slip the other hand into the glove in a single movement, keeping the folded cuff at the wrist level.
- 6-7. Pick up the second glove by sliding the fingers of the gloved hand underneath the cuff of the glove.
- 8-10. In a single movement, slip the second glove on to the ungloved hand while avoiding any contact/resting of the gloved hand on surfaces other than the glove to be donned (contact/resting constitutes a lack of asepsis and requires a change of glove).
11. If necessary, after donning both gloves, adjust the fingers and interdigital spaces until the gloves fit comfortably.
- 12-13. Unfold the cuff of the first gloved hand by gently slipping the fingers of the other hand inside the fold, making sure to avoid any contact with a surface other than the outer surface of the glove (lack of asepsis requiring a change of gloves).
14. The hands are gloved and must touch exclusively sterile devices or the previously-disinfected patient's body area.

3.2.8 Doffing Sterile Gloves

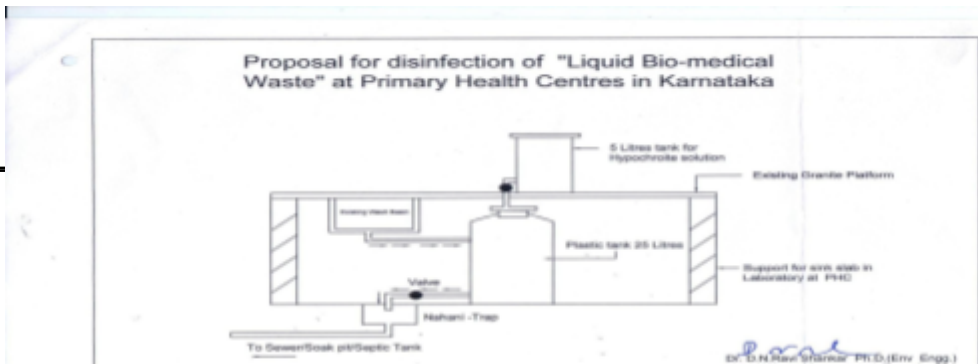
II. HOW TO REMOVE STERILE GLOVES



3.2.9 Precautions for safe use of PPE: Keep gloved hands away from face. Avoid touching or adjusting another PPE. Remove gloves if they become torn; perform hand hygiene before donning new gloves. Limit surfaces and items touched.

3.2.10 Sequence for removing PPE is first Gloves, then Face shield or goggles, Gown and Mask at last.

	3.2.11 <i>Removing Gown:</i> Unfasten ties, Peel gown away from neck and shoulder, turn contaminated outside toward the inside, Fold or roll into a bundle, Discard. 
4.	Disinfection and Sterilization of equipment and instruments
4.1	Steps for processing instruments <i>Decontamination:</i> Soak in 1% chlorine solution for one minute - Cleaning with brush, detergent and water <i>Sterilization (preferred method):</i> Put in Autoclave at 15 lbs/in² pressure 121-degree Celsius or 250-degree Fahrenheit for 20 minutes if unwrapped or 30 minutes if wrapped. <i>Chemical Sterilization (preferred method):</i> Soak in 2% Glutaraldehyde solutions for 8 hours and rinse with sterile water. <i>High level Disinfection (HLD, acceptable method):</i> Either boil for 20 minutes with lid, or soak in 2% glutaraldehyde solution for 20 minutes and rinsed with boiled water.
5.	Biomedical Waste (BMW) Management
5.1	Covered and foot operated color-coded bins with display of biohazard signs, non-chlorinated plastic bags are available in adequate quantity. Needle/hub cutter and puncture proof boxes are available.
5.2	Segregation of BMW is done as per BMW Rules as follow Yellow category - Human Anatomical Waste – Placenta etc. - Animal Anatomical waste - Soiled waste – Gauze, Bandage - Expired or Discarded drugs - Chemical waste - Chemical liquid waste - Discarded linen, Mattress, Beddings contaminated with Blood, Body fluids - Microbiology, Biotechnology and other Clinical Laboratory Waste

	Red Category: Contaminated waste (Recyclable) White Category: Sharp wastes including metals Blue Category: Glassware Metallic Implants
5.3	There is no mixing of general waste and biomedical waste. BMW is not stored for more than 48 hours.
5.4	Functional linkage with Common Biomedical Waste Treatment Facility or availability of functional Deep Burial and Sharp Pit along with authorization from State Pollution Control Board
5.5	Management of Sharp waste: - Such wastes are pretreated with 1-2% Sodium Hypochloride (having 30% of residual chlorine) for 20 mins. <i>Post exposure prophylaxis:</i> Before an exposure occurs, make sure facilities for immediate evaluation and risk assessment of needlestick injuries—e.g., a hospital hotline and confidential testing for HIV, hepatitis B, and hepatitis C, access to post-exposure treatment and prophylactic medications within two hours of exposure and Counselling, education, and follow-up testing for up to one year after exposure are available. If you sustain a needlestick injury, take the following actions immediately: Wash the wound with soap and water. Alert your supervisor and initiate the injury reporting system used in your workplace. Identify the source patient, who should be tested for HIV, hepatitis B and hepatitis C infections. Make arrangement for testing the patient by seeking consent. Get tested immediately and confidentially for HIV, hepatitis B and hepatitis C infections should be maintained. Get PEP in accordance with CDC guidelines when the source patient is unknown or tests positive for HIV, Hepatitis B or C.
5.6	Management of hazardous waste and General Waste
5.6.1	Liquid waste is made safe before mixing with other waste. Karnataka model for liquid waste which is also approved by Central Pollution Control Board may be set up. 

5.6.2	Mercury spill are managed as per rules: In the event of any mercury spillage due to breakage of instrument the following measures are to be taken: - Do's - Remove people and pets from the spill area. - Close all interior doors to the spill area. - Turn off heating and air conditioning systems. - Open all exterior windows and doors. Don'ts - Remove people and pets from the Do not touch the mercury. Never vacuum; it will release mercury vapour into the air. - Never use a broom; it will break up the mercury. - Never pour mercury down the drain. - Never walk around in contaminated clothing or shoes. - Never put mercury-contaminated items in the washing machine. Procedures - Remove all jewellery, mercury, binds with the metal. - Put on rubber or latex gloves. - Pick up broken glass carefully; wrap in a paper towel, and place in a glass container with 5 to 10 ml of water. - Use a regular syringe for sucking the mercury droplets. Left out small beads are to be gathered with two cardboards and then scooped. - Place in water in a glass container. Locate any remaining mercury with the flashlight; the beads will reflect the light making them easier to locate. - Pick up any remaining beads and place in water in the glass container.

	g. Seal the glass container and label as “mercury waste” and place in a safe corner. h. Place all materials used in the clean-up, including gloves, in a trash bag. Seal the trash bag with tape and label as “mercury waste”. i. Wash the area with mercury neutralizing agents like 20% calcium sulphide or sodium thiosulphate solution (if the chemicals are available.) j. Wash your hands, face, and any other areas of your body exposed to the mercury. k. Keep the room ventilated for a minimum of 48 hours.
5.6.3	Plastic Wastes are hand over to registered vendor through PHC/CHC.