



WASTE DISPOSAL AND HOUSEKEEPING

A facility's general cleanliness and hygiene are vital to the health and safety of staff, clients, visitors, and the community at large. Good waste disposal and housekeeping practices are the foundation of good infection prevention, and improper disposal of waste is one of the greatest threats to the health of community members.

WASTE DISPOSAL

Health facilities generate four kinds of waste: sharps, nonsharps infectious waste, nonsharps noninfectious waste, and hazardous waste. All need to be disposed of carefully to prevent infection.

Step I: Sorting

- Separate sharps, nonsharps infectious waste, and nonsharps noninfectious waste at the place where they are generated and put them into the appropriate waste containers.
- Use colored plastic containers, painted drums, or easily readable labels to help distinguish between types of waste.
- Carefully place disposable sharps into a puncture-resistant container.

Step II: Handling

- Handle medical waste as little as possible.
- Remove waste from operating theaters, procedure rooms, and sluice rooms while containers are still partially empty, or at least once a day.
- Never put your hands into a container that holds medical waste.
- Do not collect infectious waste from client care areas by emptying it into open carts or wheelbarrows.

Step III: Interim Storage

Ideally, final disposal of medical waste should take place immediately. If interim storage is necessary, it should be short-term, never for more than a day or two.

- Place waste in labeled, covered, leak-proof containers and keep these in a closed area with limited accessibility.

Step IV: Final Disposal

- Solid nonsharps infectious waste should be burned or buried; it may also be transported for off-site disposal. Disposal on the premises is preferable.
- Carefully pour liquid waste down a sink, drain, flushable toilet, or latrine. If this is not possible, bury it in a pit along with solid medical waste.
- Burn sharps in an industrial incinerator. If that is not possible, dispose of them in a sharps pit (a metal drum buried in the earth or a concrete-lined pit).
- Nonsharps noninfectious waste can be disposed of like household trash.

HOUSEKEEPING

Housekeeping Guidelines for Cleaning Operating Theaters, Procedure Rooms, Latrines, and Sluice Rooms

- Use a damp or wet mop or cloth for walls, floors, and surfaces; do not dry-dust or sweep.
- Scrub during cleaning, as it is the most effective way to remove dirt and microorganisms.
- Wash surfaces from top to bottom, so that debris fall to the floor and are cleaned up last.
- Change cleaning solutions whenever they appear to be dirty.
- Use a disinfectant cleaning solution that contains water, detergent, and a disinfectant (0.5% chlorine solution).
- Clean spills of blood or other body fluids with a 0.5% chlorine solution immediately.

Note: Facility staff should wear thick utility gloves when handling potentially contaminated waste and while performing housekeeping duties.



DECONTAMINATING AND CLEANING INSTRUMENTS AND OTHER ITEMS

DECONTAMINATING

Decontaminating instruments and other items with 0.5% chlorine makes them safer to handle during cleaning.

- Immediately after a procedure, decontaminate instruments and other items by soaking them in 0.5% chlorine solution for 10 minutes.
- To avoid damage to instruments and other items, remove them from the chlorine solution after 10 minutes. Either rinse with water or clean immediately.
- Clean spills of blood or other body fluids with a 0.5% chlorine solution immediately.

Decontaminating linens is impractical, given the large volumes of decontamination solution that would be needed and the difficulty in ensuring that the solution would reach all contaminated parts of the linens. Used drapes and other linens should be placed in a leak-proof container or folded so the contaminated areas are on the inside and then transferred carefully to washing areas.

CLEANING

Cleaning removes organic material, dirt, and other matter that can interfere with sterilization or high-level disinfection and drastically reduces the number of microorganisms.

Cleaning refers to scrubbing with a brush, detergent, and water.

- Using a soft brush, detergent, and water, scrub instruments and other items vigorously.
- Rinse items thoroughly with clean running water to remove all detergent.
- Allow items to air-dry or dry them with a clean towel. Items that will be processed with a chemical solution must be dry to avoid diluting the chemicals. Items that will be high-level disinfected by boiling do not need to be dried first.

To prepare a 0.5% chlorine solution from liquid bleach, follow these instructions:

- Read the bleach bottle label and find the percentage (%) of chlorine (it may say % active chlorine or °chlorum) [Note: 1° chlorum = 0.3% chlorine]. If your bleach comes in unlabeled bottles, it is important to find out the % of chlorine from the supplier.
- Use this formula to determine how many parts water to mix with one part bleach: $\left[\frac{\% \text{ active chlorine}}{0.5\%} \right] - 1$

Examples:

| | |
|--|--|
| (1) If the bottle label says 5% active chlorine $\left[\frac{5\%}{0.5\%} \right] - 1 = [10] - 1 = 9$ So, mix nine parts water with one part bleach. | (2) If the bottle label says 48 ° chlorum $48^\circ \text{ chlorum } (0.3\%) = 14.4\% \text{ active chlorine}$ $\left[\frac{14.4\%}{0.5\%} \right] - 1 = [28.8] - 1 = 27.8$ So, mix 28 parts water with one part bleach. |
|--|--|

Always wear utility gloves, a mask, and protective eyewear when cleaning instruments and other items. Avoid using steel wool or abrasive cleansers.

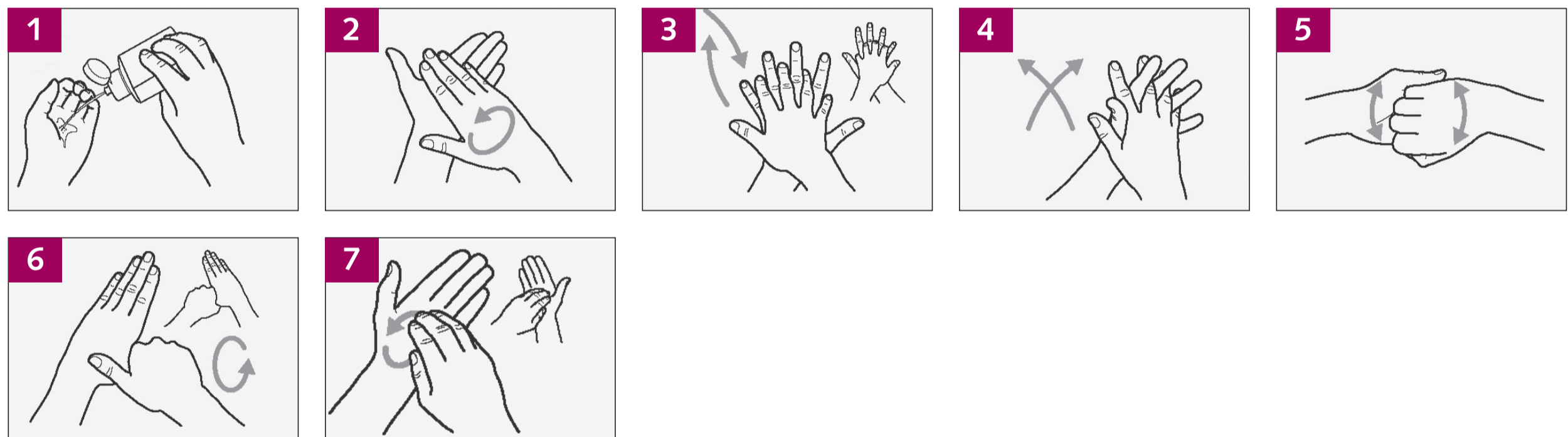
To reduce the risk of exposure to infectious material, machine washing is recommended for linens (caps, gowns, masks, and surgical drapes). If it is necessary to wash these by hand, wear protective gear (utility gloves, waterproof aprons, and either face shields or eyecovers and a mask) to reduce exposure to blood and other body fluids.



HAND HYGIENE

Keeping your hands clean may be the single most important infection prevention procedure. Use of alcohol-based handrubs is now the preferred hand hygiene method.

Use an alcohol-based handrub when hands are not visibly soiled:



Note: Hands should remain wet from the alcohol handrub product through Step 7; once dry, your hands are safe.

Wash hands with soap and water when they are visibly soiled:



Adapted from:

World Health Organization (WHO). 2009. *WHO guidelines on hand hygiene in health care*. Geneva.



USE OF GLOVES

GLOVING

Gloves protect both clients and staff by acting as a barrier against infectious microorganisms. Wear gloves whenever you expect your hands will come into contact with blood, other body fluids, or tissue. Also wear gloves whenever your hands may come into contact with medical waste.

Wear sterile gloves:

- During all procedures in which your hands will come into contact with the client's bloodstream or tissues under the skin

Wear single-use exam gloves (clean, but not sterile):

- During all procedures where there will be contact with intact mucous membranes
- When the primary purpose of the gloves is to reduce the provider's risk of exposure

Carefully remove sterile or exam gloves by turning them inside out. Do not allow the outside surfaces of the gloves to contact your skin.

Avoid snapping gloves when removing them. There is no need to decontaminate gloves prior to disposal. Discard them in a leakproof container for nonsharp infectious waste.

Wear utility or heavy-duty household gloves:

- When handling contaminated items and medical waste
- While performing housekeeping activities

Always wash utility gloves before you remove them.



STERILIZING INSTRUMENTS AND OTHER ITEMS

Because sterilization kills all microorganisms, it is recommended for items like surgical instruments that come into contact with the bloodstream or with tissues under the skin.

1. Decontaminate, clean, and dry all instruments and other items to be sterilized.
2. Wrap cleaned items in two layers of cloth or place them unwrapped in a metal container.
3. Arrange wrapped packs or containers in the sterilizer to allow free circulation of heat or steam to all surfaces.
4. Follow the manufacturer's instructions for the sterilizer you are using, or follow the general guidelines below:

STEAM STERILIZATION

| | |
|-------------|---|
| Time | 30 min. wrapped, or 20 min. unwrapped |
| Temperature | 121°C (250°F) |
| Pressure | 106 kPa (15 lb/in ² ; 1 bar) |

DRY-HEAT STERILIZATION

| | | |
|-------------|---------------|---------------|
| Time | 2 hours | 1 hour |
| Temperature | 160°C (320°F) | 170°C (340°F) |

Under optimal storage conditions and with minimal handling, wrapped items can be considered sterile as long as they remain intact and dry.



HIGH-LEVEL DISINFECTION (HLD)

HLD is the only alternative when sterilization is not available or feasible. It can also be used for items that will come into contact with broken skin or intact mucous membranes.

HLD BY BOILING

1. Decontaminate and clean instruments and other items.
2. Open hinged instruments and disassemble those with sliding or multiple parts. All items must be completely covered with water.
3. Boil items for 20 minutes in a pot or a boiler with a lid:
 - Start timing when the water begins to boil.
 - Do not add or remove any additional water, instruments, or other items once timing begins.
4. After boiling, remove items using sterile or HLD pickups.
5. Use items immediately, or keep them in a covered, dry, HLD container and use them within one week.

CHEMICAL HLD

1. Decontaminate, clean, and dry instruments and other items.
2. Open hinged instruments and disassemble those with sliding or multiple parts. Completely submerge all items in the disinfectant solution.
3. Soak items for 20 minutes in 2% glutaraldehyde (e.g., Cidex) or 0.5% chlorine solution.
 - Do not add or remove instruments or other items once timing begins.
4. After soaking, remove items using sterile or HLD pickups and thoroughly rinse them with boiled water.
5. Use items immediately, or keep them in a covered, dry, HLD container and use them within one week.