The information included in this pocket guide does not replace the information found in the Environmental health management for voluntary medical male circumcision services site management guide. Please refer to that guide for detailed information on procedures and best practices. The purpose of this pocket guide is to serve as a quick reference for health care staff.

Published in 2016

For more information, contact pfscm@pfscm.org.
Hand washing with liquid soap and clean water

1. Wet hands with clean water.
2. Apply enough soap to cover all hand surfaces.
3. Rotate rubbing hands palm to palm seven times.
4. Rub right palm over left dorsum with interlaced fingers and vice versa seven times.
5. Rub palm to palm with fingers interlaced seven times.
6. Rub back of fingers to opposing palms with fingers and vice versa seven times.
7. Rotate rubbing of left thumb clasped in palm and vice versa seven times.
8. Rotate rubbing backwards and forwards with clasped fingers of right hand in palm and vice versa seven times.
9. Rinse hands with clean water; keep water running.
10. Dry hands thoroughly with single-use towel.
11. Use towel to turn off faucet and open door, then discard towel into a waste receptacle.
12. Your hands are now clean.

Washing should last 40-60 seconds.

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.
How to use alcohol hand rub*

1. Apply a palmful of the product in a cupped hand, covering all surfaces.

2. Rub hands palm to palm.

3. Rub right palm over left dorsum with interlaced fingers and vice versa.

4. Rub palm to palm with fingers interlaced.

5. Rub back of fingers to opposing palms with fingers interlocked.

6. Rotate rubbing of left thumb clasped in palm and vice versa.

7. Rotate rubbing backwards and forwards with clasped fingers of right hand in palm and vice versa.

8. Once dry, your hands are now clean.

*Alcohol rub should only be used on visibly clean and dry hands to remove contaminants that cannot be seen.

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.
Personal protective equipment for waste handlers

- Goggles
- Cap
- Mask
- Scrubs or coveralls
- Plastic or rubber apron
- Utility gloves
- Rubber boots

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.
Personal protective equipment for incinerator operators

- Face shield or goggles
- Coveralls
- Leather apron
- Leather gloves
- Mask with filter
- Thick-soled, steel-toed safety boots

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.
Sharps safety

Place sharps in yellow sharps safety box. Seal off securely when 3/4 full.

Deposit syringe with needle down. Do not recap.

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.
Packaging considerations

Sometimes specific waste streams don’t fit into conventionally available hazardous waste packaging. In this instance, the figure below can help health care facility staff in making educated packaging decisions.

<table>
<thead>
<tr>
<th>Waste is:</th>
<th>Packaging considerations:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potentially sharp when broken</td>
<td>Use a puncture-proof, sealable, rigid plastic container.</td>
</tr>
<tr>
<td>Heavy</td>
<td>Use smaller containers that can withstand relative load.</td>
</tr>
<tr>
<td>Light</td>
<td>Use larger volume containers or bags.</td>
</tr>
<tr>
<td>Wet</td>
<td>Use containers/packaging that are leak-proof and liquid-proof (e.g., a cardboard box would not be suitable).</td>
</tr>
<tr>
<td>Dry</td>
<td>Use lightweight packaging or bags as there is no risk of leakage or seepage.</td>
</tr>
<tr>
<td>Clumsy, large, or oddly shaped</td>
<td>Use the right-sized container for the waste stream and use the prescribed color-coding and labeling requirements.</td>
</tr>
</tbody>
</table>

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.
Labeling of waste containers and bags is used to identify the source, record the type and quantities of waste produced in each area, and allow problems with waste segregation to be traced back to source.

1. **Label containers/bags with proper hazard symbol and type of waste if applicable (pathological, infectious, etc.).**
   Using an international hazard symbol on each waste container and bag is recommended. See Annex 1 for all hazardous waste symbols.

2. **During collection, place stickers on containers/bags with waste details.**
   A simple approach is to attach a label to each filled container/bag with the details of the medical area, date, and time of closure of the container, and the name of the person filling out the label.

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.
Waste segregation

- **Pathological**
- **Infectious**
- **Sharps**
- **Chemical**
- **Non-hazardous (General)**

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.
Spill management

Responding to a spill:

1. Remain calm.
2. Evacuate all unnecessary personnel and quarantine the spill area.
3. Assess the nature of the spill (see the following pages).
4. Contact management and/or emergency services.
5. Put on necessary PPE.
6. Follow protocol for your type of spill.
7. Work efficiently and carefully.
8. Be aware of the surroundings at all times.
9. Once the emergency has been identified, contact the appropriate departments.

**SEEK IMMEDIATE MEDICAL ATTENTION IF EXPOSED TO HAZARDOUS SUBSTANCES**

- Only staff trained in spill management can conduct these procedures.
- Personal protective equipment (PPE) must be used as part of infection prevention and control.

- Cap
- Goggles
- Mask
- Plastic or rubber apron
- Utility gloves
- Rubber boots

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.
Infectious waste – dry spill

1. Collect dry spill with brushes, pans, or suitable equipment.

2. Place collected dry spill into a yellow bag.

3. Decontaminate spill area by carefully spraying with a chlorine solution and wiping the area dry.

4. Place used cloths or paper towels into a yellow bag, close securely, and label.

5. Take yellow bags to designated waste storage area.

6. Dispose of or decontaminate all PPE or equipment used.

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.
For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.

Infectious waste – wet spill

1. Place cloth or paper towels on wet spill to absorb it (approximately 5 minutes).
2. Place saturated cloth or paper towels into a red bag.
3. Continue to wipe the area with cloth or paper towels until all contaminants are removed.
4. Place used cloth or paper towels into red bag.
5. Decontaminate spill area by carefully spraying with a chlorine solution and wiping the area dry.
6. Place used cloth or paper towels into the red bag, close securely, and label.
7. Take red bags to designated waste storage area.
8. Dispose of or decontaminate all PPE or equipment used.

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.
Infectious waste (sharps) – sharps spill

1. Collect the sharps with a brush and long-handled dust pan or use forceps or tweezers where necessary.

2. Place collected sharps into a sharps safety box and close securely.

3. Decontaminate spill area by carefully spraying with a chlorine solution and wiping the area dry.

4. Place used cloth or paper towels into a yellow bag, close securely, and label correctly.

5. Take the sharps safety box(es) and yellow bag to designated waste storage area.

6. Dispose of or decontaminate all PPE or equipment used.

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.
Chemical – general spill

1. Consult the material safety data sheet (MSDS) issued with the chemical in question for guidance.

2. Collect chemical spill with suitable means and equipment as directed by the MSDS.

3. Place contaminated materials into a brown bag or container (where applicable), close securely, and label correctly, as per MSDS.

4. Once spill is cleared, decontaminate spill area as per MSDS.

5. Take brown bag or container to designated waste storage area.

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.
Heavy metal – mercury spill

1. Retrieve the mercury spill kit.

2. Place any broken glass into a heavy-duty self-sealing plastic bag. Label the bag as containing mercury contaminant.

3. Collect all visible drops of mercury using one of the following:
   a. Aspirator with a narrow tube
   b. Syringe (without a needle)
   c. Pasteur pipette or rubber bulb
   d. Strips of adhesive tape

4. Place collected mercury in jar with enough clean water to cover the mercury, close the lid securely, and label correctly.

5. Use cardboard sheets or masking tape to capture any spilled beads, using your torch for optimal visibility.

6. Place disposable gloves and all cleaning aids into a self-sealing bag and label accordingly.

7. Make arrangements with responsible person with regards to storage and/or disposal procedures for mercury waste.

8. Wash protective visors with liquid soap and warm clean water, and dry with paper towel before returning to Mercury Spill Kit.

9. Wash hands thoroughly with soap and warm clean water.

10. Document details in the logbook or control sheet found in the mercury spill kit.

11. Return the mercury spill kit to the proper person. Replace any used items in the spill kit.

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.
Making chlorine solution from liquid bleach

1. Put on required personal protective equipment (PPE).

2. Determine the percentage of active chlorine solution by reading the active ingredients on the label of the bottle. **Note:** Chlorine solution concentration will vary from approximately 2.4% to 15%.

3. Using the table above, determine the correct amounts of concentrated bleach and clean water required to make the decontamination solution.

<table>
<thead>
<tr>
<th>CHLORINE % AVAILABLE</th>
<th>PARTS OF CLEAN WATER TO 1 PART OF BLEACH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.5% SOLUTION</td>
</tr>
<tr>
<td>2.4%</td>
<td>4</td>
</tr>
<tr>
<td>3.5%</td>
<td>6</td>
</tr>
<tr>
<td>3.6%</td>
<td>6</td>
</tr>
<tr>
<td>5%</td>
<td>9</td>
</tr>
<tr>
<td>6%</td>
<td>11</td>
</tr>
<tr>
<td>8%</td>
<td>15</td>
</tr>
<tr>
<td>10%</td>
<td>19</td>
</tr>
<tr>
<td>15%</td>
<td>29</td>
</tr>
</tbody>
</table>

4. Measure the appropriate clean water as indicated in Step 3.

5. Pour the clean water into the bucket.

6. Measure the appropriate volume of chlorine solution found on the chart in Step 3.

7. Pour corresponding amount of chlorine solution concentrate into the bucket that contains the measured clean water.

8. Use a mixing spoon to gently mix the solution. Solution is now ready for use.

9. To dispose of the solution, dilute by adding clean water to top off the bucket. Pour diluted chlorine solution down a utility sink drain or latrine or into a flushable toilet. Avoid splashing. Rinse the toilet or sink with clean water to remove residual wastes. **Note:** The chlorine solution should not be reused; a new solution must be made for each cleaning.

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.
Making chlorine solution from powders

1. Put on required personal protective equipment (PPE).

2. Determine the percentage of active hypochlorite by reading the active ingredients on the label of the container. **Note:** Hypochlorite concentration will vary from approximately 2.4% to 15%.

3. Using the table above, determine the correct amounts of concentrated bleach and clean water required to make the decontamination solution.

Mixing chlorine solution

<table>
<thead>
<tr>
<th>CHLORINE % AVAILABLE</th>
<th>Grams of chlorine powder per liter of water</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.5% SOLUTION</td>
</tr>
<tr>
<td>Calcium hypochlorite (70%)</td>
<td>7.1 g/La</td>
</tr>
<tr>
<td>Calcium hypochlorite (35%)</td>
<td>14.2 g/L</td>
</tr>
<tr>
<td>NaDCCc (60%)</td>
<td>8.3 g/L</td>
</tr>
<tr>
<td>Chloramine tablets (1 g per tablet)</td>
<td>20 (tablets) g/Ld</td>
</tr>
<tr>
<td>NaDCC tablets (1.5 g per tablet)</td>
<td>4 tablets/L</td>
</tr>
</tbody>
</table>

*For dry powders, read x grams per liter (example: Calcium hypochlorite 7.1 g/L). Use boiled clean water when preparing a 0.1% chlorine solution for high-level disinfection (HLD) because tap water contains microscopic organic matter that inactivates chlorine. Sodium dichloroisocyanurate. Chloramine releases chlorine at a slower rate than does hypochlorite. Before using the solution, be sure the tablet is completely dissolved.

4. Measure the appropriate volume of clean water as indicated in Step 3.

5. Pour the clean water into the bucket.

6. Measure the appropriate number of grams of powder found in Step 3.

7. Add corresponding amount of powder into the bucket that contains the measured clean water.

8. Use a mixing spoon to gently mix the solution. Solution is now ready for use.

9. After use, dilute the solution by adding water to top off the bucket. **Note:** The chlorine solution should not be reused; a new solution must be made for each cleaning.

10. Pour the diluted chlorine solution down a utility sink drain or latrine, or into a flushable toilet. Avoid splashing. Rinse the toilet or sink with clean water to remove residual waste.

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.
Processing reusable metal instruments

1. Receive the instruments
2. Decontaminate
3. Wrap the instruments
4. Sterilize
5. Store

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.
Decontaminating reusable metal instruments

1. Put on required personal protective equipment (PPE).
2. Determine the proper procedure for mixing the chlorine solution.
3. Mix chlorine solution according to procedures found on pages 44 and 46.*
4. Place reusable metal instruments in the prepared decontamination solution for 10 minutes.
5. Fill a second bucket 3/4 full with water and detergent. Fill a third bucket 3/4 full with clean water.
6. Place the three buckets next to each other: one bucket with pre-soaked instruments, one bucket with detergent and clean water, and one bucket with clean water for the bath.
7. Remove half the instruments from the pre-soak solution and place them in the bucket of detergent and clean water. Scrub the instruments with a nylon bristle brush until all signs of contaminants have been removed.
8. Place the scrubbed instruments into the clean water bath for rinsing.
9. Remove instruments from clean water bath and place them on a clean, dry towel. Inspect instruments for rust, blunting, or residual contamination.
10. Place decontaminated reusable instruments in containers for storage or sterilization. Reusable instruments can be sterilized following the procedure on page 56.*
11. After use, dilute the solution by adding water to top off the bucket. **Note:** The chlorine solution should not be reused; a new solution must be made for each cleaning.
12. Pour diluted chlorine solution down a utility sink drain or latrine, or into a flushable toilet. Rinse the toilet or sink with clean water to remove residual waste.

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.
Wrapping of reusable metal instruments

1. Inspect instruments for contamination and verify that all required instruments are present for kit assembly.

2. Place instruments in autoclave container or carton.

3. Place closed container or carton in center of steam sterilization wrapper.

4. Lift one corner of wrapper, fold over, and tuck under long side of container or carton.

5. Lift left corner of wrapper and fold over container or carton so that the wrapper is flush against the short side.

6. Lift right corner of wrapper and fold over container or carton until wrapper is flush against the short side.

7. Fold extended wrapper inward to make a long V shape.

8. Fold long V back over top of container or carton and tuck underneath into folds.

9. Secure this fold with sterilization indicator tape.

10. Secure both sides of the wrapper with sterilization indicator tape. Do not use other tape, pins, clips, staples, or sharp objects.

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.
Decontaminating single use instruments

1. Put on required personal protective equipment (PPE).
2. Determine the proper procedure for mixing the chlorine solution.
3. Mix chlorine solution according to procedures found on pages 44 and 46.*
4. Place reusable metal instruments in the prepared decontamination solution for 10 minutes.
5. Fill a second bucket 3/4 full with water and detergent. Fill a third bucket 3/4 full with clean water.
6. Place the three buckets next to each other: one bucket with pre-soaked instruments, one bucket with detergent and clean water, and one bucket with clean water for the bath.
7. Remove half the instruments from the pre-soak solution and place them in the bucket of detergent and clean water. Scrub the instruments with a nylon bristle brush until all signs of contaminants have been removed.
8. Place the scrubbed instruments into the clean water bath for rinsing.
9. Remove instruments from clean water bath and place them on a clean, dry towel.
10. After use, dilute the solution by adding water to top off the bucket. Note: The chlorine solution should not be reused; a new solution must be made for each cleaning.
11. Pour diluted chlorine solution down a utility sink drain or latrine, or into a flushable toilet. Rinse the toilet or sink with clean water to remove residual waste.
12. Place properly decontaminated instruments in a labeled and sealable plastic drum or plastic container.

For more information, refer to the Environmental health management for voluntary medical male circumcision services site management guide.

* See pages 44 and 46 for instructions on mixing chlorine solution.