

Reprocessing Guidelines for Basic Neonatal Resuscitation Equipment in Resource-Limited Settings WORKSHOP SIMULATION CHECKLIST

Use this checklist to evaluate your team member(s) as they undertake reprocessing of the resuscitation equipment. Steps that cannot be realistically undertaken during the simulation should be described verbally.

BOILING is the method of disinfection selected for this simulation.

PREPARATION

	DESCRIBES the reprocessing space layout: clean vs. dirty areas, job aids visible, identifies space for each reprocessing step (immediate pre-cleaning, cleaning, etc.).
	Puts on personal protective equipment. <ul style="list-style-type: none"> • Puts on utility gloves (mentions not wearing same gloves used during patient care or for cleaning delivery area). • Describes other personal protective equipment that he/she would wear during reprocessing (cap, mask, eye protection, apron, boots).
	Prepares 0.5% chlorine solution for immediate pre-cleaning. <ul style="list-style-type: none"> • Uses correct dilution: <ul style="list-style-type: none"> • 3.85% available chlorine: one-part bleach to seven-parts water. <ul style="list-style-type: none"> ○ $3.85\% \div 0.5\% - 1$ or $(7.7 - 1 = 6.7)$ • 6% available chlorine: one-part bleach to 11-parts water. <ul style="list-style-type: none"> ○ $6\% \div 0.5\% - 1$ or $(12 - 1 = 11)$ • Stirs the solution. • Separates some solution for pre-cleaning in a smaller container. • Puts a lid on each container. • Labels containers with name of solution, date, and time.
	Prepares soapy water. <ul style="list-style-type: none"> • Describes that only liquid soap should be used (no bar or powder soap). • Puts a lid on the container. • Labels container with name of solution, date, and time.
	DESCRIBES how they would prepare clean water for rinsing after cleaning (running water or clean water in bucket that should be used only once).
	DESCRIBES steps taken to prepare the area (wipe counters, mop floors).

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PRE-DISINFECTION

Immediate pre-cleaning

	Puts on a clean pair of utility gloves.
	Wipes all external surfaces of equipment with gauze soaked in chlorine solution (from small chlorine solution container).

Disassembly (still wearing exam/utility gloves)

	Removes mask from ventilation bag.
	Completely disassembles ventilation bag. <ul style="list-style-type: none">Counts number of pieces of equipment and writes it down in high-level disinfected (HLD) log.
	Opens suction device away from face.

Cleaning (still wearing exam/utility gloves)

	Washes gloved hands in the soapy water.
	Cleans each piece of equipment with brush and/or rolled gauze. <ul style="list-style-type: none">Describes that resuscitation equipment should not be mixed with delivery equipment or other equipment.
	Uses toothpick to clean nozzle of suction device.

Rinsing after cleaning (still wearing exam/utility gloves)

	Rinses gloved hands in clean water.
	Rinses each piece of equipment well (mentions that after use, water will be discarded and replaced with new water).
	Mentions that drying is not needed before boiling (only needed before autoclaving or chemical HLD).
	Puts each piece of equipment in boiling machine.

Removal of limescale (PROMPT team member to describe removal of limescale)

	DESCRIBES process for removal of limescale when needed. <ul style="list-style-type: none">Mix one-part water and one-part white vinegar (3% to 5% concentration).Soak equipment for ten minutes.Rinse until components do not smell of vinegar.Describes that process can be repeated if limescale remains on equipment.
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DISINFECTION

Boiling (still wearing exam/utility gloves)

	Fills boiling machine (pot) with clean water, making sure that there is 2.5 cm of water above equipment and that equipment is fully submerged.
	Puts lid on boiling machine.
	DESCRIBES turning on boiling machine and then waiting for rolling boil.
	Writes start time in HLD log (only when rolling boil begins).
	DESCRIBES the timing for boiling is 20 minutes.
	Writes end time in HLD log.
	Removes equipment from boiling machine with HLD forceps and sets equipment in drying area that has been HLD or on autoclaved linen. <ul style="list-style-type: none">• Does not touch equipment with hands unless has changed to sterile or HLD gloves.

Drying after HLD

	Puts on sterile or HLD gloves before touching equipment.
	Wipes equipment dry with sterile gauze or autoclaved linen.
	Puts equipment in the area that has been prepared (HLD) for inspection.

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POST-DISINFECTION

Inspection (still wearing sterile/HLD gloves)

	DESCRIBES they have checked parts to be sure they are all from same brand/model of resuscitator.
	Counts number of pieces to ensure same number as at disassembly.
	Checks bag, mask, and suction device for: <ul style="list-style-type: none">• Damage.• Missing parts.• Membranes stuck together.• Remaining soil/debris.• Remaining moisture.• Mineral deposits.
	DESCRIBES damaged components would be removed from service.

Reassembly (still wearing sterile/HLD gloves)

	DESCRIBES following picture or the instructions of the resuscitator (with components in their correct order) posted in the reprocessing area.
	Reassembles ventilation bag and suction device correctly.

Function testing: ventilation bag (still wearing sterile/HLD gloves)

	Follows instructions described in general job aid.
	Squeezes bag. LOOKS for the patient outlet valve to open with each squeeze (device is ready to deliver air to patient).
	Seals mask tightly to palm of hand and squeezes bag hard enough to open pressure release valve. LISTENS for the sound of air escaping (this shows that air that cannot be delivered safely will escape through valve).
	Maintains tight seal and checks that the bag re-inflates after each squeeze (this shows that fresh air will enter bag through inlet valve).
	DESCRIBES that if any step fails, repeat disassembly and reassembly, and retest functionality.

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Function testing: suction device (still wearing sterile/HLD gloves)

	Checks that top and bottom of suction device fit together tightly.
	Squeezes bottom of suction device. While holding squeeze, blocks tip of device with finger or palm of hand. Releases squeeze. Device should not expand (this checks vacuum of device). <ul style="list-style-type: none">• If there is no vacuum, reopens and closes device and repeats the procedure.

Function testing: all equipment (PROMPT team member to describe process for failed equipment)

	DESCRIBES process for failed equipment: <ul style="list-style-type: none">• Set equipment aside.• Have supervisor check equipment.• Unit has a written plan outlining what happens to failed equipment (are any working pieces reused, etc.).
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Storage (still wearing HLD/sterile gloves)

	Puts resuscitation device into HLD, covered storage (plastic or metal container with lid that has been HLD, or autoclaved linen).
	DESCRIBES that storage container should be cleaned and HLD every week or earlier if dusty.
	DESCRIBES that the following type of storage is not appropriate: <ul style="list-style-type: none">• Uncovered containers (recontamination).• Cardboard (harbors pests).