



South Eastman Health
Santé Sud-Est

	No: MDR - # 5.1 IC – AC & LTC # 5.1 RM # 40
Approved By: Regional Management Team	Category: Medical Device Reprocessing (MDR) Source: MDR Quality Team
New/Replaces: New Date Approved: December 22, 2011 Reviewed: Revised: June 18, 2012	Subject: Point-of-use Manual Cleaning and Disinfection of Instruments/Equipment

POLICY

Reusable patient care instruments/equipment will be cleaned, disinfected and sterilized in compliance with infection control guidelines as recommended by manufacturer's instructions.

Cleaning of reusable instruments/equipment will be done at point-of-use in decontamination area i.e. soiled utility room, by trained staff immediately after use. Single use items are not to be reprocessed as per Single Use Medical Devices regional policy RM-65. Mechanical cleaning and disinfection is the preferred method and must be used when available. Low-level disinfection of reusable noncritical instruments/equipment, items that have contact with skin only and do not enter body cavities or pierce through the skin can be done at point-of-use by trained staff, see Appendix A. Manual cleaning and disinfection exposes workers to chemicals, blood, body fluids and waste. However, in the absence of a mechanical washer/disinfector, manual cleaning of reusable items will be performed before being disinfected at point-of-use or transported to the Medical Device Reprocessing (MDR) department for high level disinfection or sterilization.

GENERAL PRINCIPLES

1. Reusable instruments/equipment must be cleaned prior to being disinfected or sent to MDR for further reprocessing.
2. Staff assigned to clean and disinfect health care instruments/equipment shall:
 - Be properly trained.
 - Wear appropriate personal protective equipment (PPE) as per Routine Practices.
 - Be encouraged to be immunized against Hepatitis B.
 - Practice good hand hygiene.

3. Cleaning is the first and most important step in instruments/equipment reprocessing. Effective disinfection and sterilization are dependent on proper cleaning. Any residual debris, such as tissue, blood or other body fluids, not removed from instruments/equipment prior to disinfection or sterilization will result in contaminated instruments/equipment.
4. Disinfection is a two step process. The first step is proper cleaning of the instruments/equipment. The second step is to make sure that the disinfectant's manufacturer's instructions are followed. Following the instructions is extremely important. The disinfectant must have contact with the instruments/equipment for the full recommended contact time listed in the product directions. Failure to follow manufacturer's instructions will result in improperly disinfected instruments/equipment.

A. CLEANING PROCEDURE

EQUIPMENT

Sink for cleaning	Facility approved disinfectant cleaner (Perdiem 1:64 or 15 ml:1 liter of water)
Sink for rinsing	Warm tap water
Absorbable soaker	Soft bristle brush/pipe cleaner as needed

		<u>PROCEDURE</u>	<u>RATIONALE</u>
1.	Prepare		
	a)	Perform hand hygiene.	
	b)	Put on personal protective equipment as recommended by Routine Practices and cleaning product manufacturer's recommendations.	Each worker is responsible for personal safety. Gloves, waterproof gown and eye/face protection may be required.
	c)	Clean sink in designated area with facility approved disinfectant.	Sink must be large and deep enough to immerse instruments/equipment completely.
2.	Sort		
	a)	Separate instruments/equipment into groups of similar size. Keep sharp and/or delicate instruments/equipment together.	To prevent injury to personnel, damage to the instruments/equipment and ensure instrument tray sets are complete.
	b)	Be sure all instruments/equipment are: <ul style="list-style-type: none"> ▪ In "open" position. ▪ Disassemble/remove all parts as required. 	To ensure all surfaces of instruments/equipment are cleaned and come in contact with the disinfectant cleaner.
	c)	Instruments/equipment that are grossly soiled should be pre-rinsed with warm tap water to remove gross soil/debris.	Failure of timely removal of soiled organic material, such as blood, feces, mucous or pus left on

PROCEDURE

Immersible instruments/equipment that cannot be cleaned immediately after use should be fully submerged in correct dilution of recommended disinfectant cleaner solution.

For non immersible instruments/equipment, use a separate clean cloth soaked with disinfectant cleaner to wipe down each piece.

- d) Visually inspect all instruments/equipment for damage, i.e. cracks, defects, etc. and remove any residue, including adhesive prior to cleaning.

RATIONALE

instruments/equipment may damage the items and will stop the action of disinfectants or sterilants.

To identify instruments/equipment that are damaged and may require replacement.

To remove debris where germs can live and grow.

3. Cleaning

One Sink Method

If one sink available, cleaning and rinsing will be a two step process.

Step 1. Fill sink with cleaner disinfectant and warm water. Place absorbable soaker on counter.

Follow steps a, b and c that follow.

Step 2. Empty sink. Rinse and clean sink. Fill sink with clean tap water.

Place cleaned instruments/equipment in rinse water. Change soaker. Continue with *4 Rinse and Dry* below.

Two Sinks Method

If two sinks available, cleaning and rinsing can be done simultaneously as follows.

Step 1. Fill first sink with cleaner disinfectant and warm water solution.

Step 2. Fill second sink with clean tap water for rinsing. Place absorbable soaker on counter. Follow steps below.

Use warm, not hot water because hot water will set blood and make it difficult to remove debris.

Do not use saline solution for soaking as it will damage medical instruments/equipment.

- a) Place dirty instruments/equipment to be cleaned in sink filled with water and disinfectant cleaner.

PROCEDURE

RATIONALE

- b) All instruments/equipment must be kept completely under water during cleaning.
 - Clean instrument/equipment with a single use soft bristle brush using friction.
 - Keep the brush and the instruments/equipment being cleaned under the surface of the cleaning solution.
 - Clean all lumens, openings and crevices.
 - Repeat cleaning of lumens and surfaces until brush does not show visible soil/debris.
 - Discard single use soft bristle brush after use.

- c) When cleaning heavily soiled instruments/equipment or a large number of instruments/equipment, change cleaning solution frequently.

To ensure entire instruments/equipment, including all internal lumens have contact with the cleaning solution.
Friction action is an important part of cleaning.
To prevent contamination droplets from being sprayed into the air.

To ensure no residual “dirty” particles remain and render instruments/equipment contaminated.

Avoids re-contamination.

One Sink Method Go back to one sink cleaning method, step 2 above.
Two Sink Method Continue with <i>4 Rinse and Dry</i> below.

- 4. **Rinse and Dry**
 - a) After cleaning rinse all instruments/equipment/lumens thoroughly with water.
 - b) Place cleaned and rinsed instruments/equipment on soaker to dry.
 - c) When instruments/equipment are dry, they are ready for disinfection or transportation to MDR for high level disinfection or sterilization.

- 5. **Clean Area**
 - a) When finished: drain, rinse and clean sink with approved disinfectant.

Removes residues.

PROCEDURE

RATIONALE

- b) Wipe counter with approved disinfectant.
- c) Apply clean soaker to counter

B. LOW-LEVEL DISINFECTION PROCEDURE

After instruments/equipment have been cleaned and are dry, they are ready for disinfection.

EQUIPMENT

Absorbable soaker

Facility approved disinfectant (Oxivir® Tb Wipes)

Clock or timer

PROCEDURE

RATIONALE

1. Prepare

- a) Perform hand hygiene.
- b) Put on personal protective equipment as recommended by Routine Practices and disinfectant product manufacturer's recommendations.
- c) Wipe counter with approved disinfectant.

Each worker is responsible for personal safety. Use PPE as recommended.

2. Disinfect

- a) Using pre-moistened disinfectant wipes, wipe all surfaces of the instruments/equipment for one minute to ensure that all surfaces of the item remain visibly wet for the full minute. One minute contact time starts once item is completely wet with the disinfectant. To be effective, instruments/equipment must be wet during disinfection. Replace wipe as needed.

To achieve effective disinfection, disinfectant's manufacturer's recommendation must be followed. Keeping instruments/equipment wet with disinfectant for one minute will kill bacteria and viruses, and achieve low level disinfection.

3. Dry

- a) After disinfection, place instruments/equipment on clean absorbable soaker to air dry.

PROCEDURE

RATIONALE

- b) When instruments/equipment are dry, they can be stored or put back in circulation for patient use.

4. Clean Work Area

- a) When finished, wipe counter with approved disinfectant.
- b) Apply clean soaker to counter.

APPENDICES

Appendix A – ANNEX H: Noncritical Items Requiring Cleaning and/or Low-level Disinfection

REFERENCES

CHICA-Canada, Audit Toolkit Version 2, September 2009.

CSA Standards, Z314.3-09, Effective sterilization in health care facilities by the steam process, March, 2009.

CSA Standards, Z314.8-08, Decontamination of Reusable Medical Devices, March, 2008.

Diversey, Oxivir® Tb and Oxivir® Tb Wipes product sheet, 2010.

Essentials of Perioperative Nursing, Third Edition, 2005, Cynthia Spry.

Recommended Standards, Guidelines, and Position Statements for Perioperative Registered Nursing Practices, ORNAC, 7th Edition.

Standards, Recommended Practices, and Guidelines, AORN 2003 Edition.

The Butcher Company, PerPiem™ Disinfectant Cleaner product sheet, 2001.

CROSS REFERENCES

Regional Administration Policy Manual - RM-65 and Infection Control Manual – AC 6.18 & LTC 6.14 – Single Use Medical Devices

Regional Administration Policy Manual – RM – 53 and Infection Control Manual – AC 8.1 and LTC 8.1 – Routine Practices

ANNEX H: Noncritical Items Requiring Cleaning and/or Low-level Disinfection

NOTE: Reprocessing schedules and methods vary according to the area of the facility, type of surface to be cleaned, and the amount and type of soil present.

Item	Minimum Cleaning and Disinfection Level: CL = Clean only LLD = Clean + Low-Level Disinfectant	Minimum Frequency	Remarks
Airflow sensors (Sleep Lab)	LLD	▪ between patients	▪ clean with detergent and water before disinfection
Apnea Monitor Monitor/Sensor Pad	LLD	▪ between patients and when soiled	
Arrest Cart	See Resuscitation Cart		
Bath Seat and Raised Toilet Seat Single patient use	LLD	▪ when soiled	▪ ideally dedicated to each patient
Multiple patient use	LLD	▪ between patients	
Bedpan and Urinal Single patient	CL	▪ clean after each use if designated to patient	▪ remove gross soil and fluids before cleaning
Between patients	LLD	▪ between patients	▪ remove gross soil and fluids before cleaning ▪ automated bedpan washer/disinfectant is preferred
Bladder Scanner	LLD	▪ between patients	
Blood Pressure Cuff and Machine	LLD	▪ between patients ▪ when visibly soiled	▪ ideally stays with patient until discharge
Cardiac Monitor and Cables	CL	▪ minimum daily and between patients	
Cast Cutting Blades	CL or disposable	▪ when soiled	▪ send for sterilization if soiled with blood or body fluids
Saws	CL	▪ when soiled	
Clippers Surgical	LLD or disposable	▪ between patients	▪ disposable heads are preferred

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Item	Minimum Cleaning and Disinfection Level: CL = Clean only LLD = Clean + Low-Level Disinfectant	Minimum Frequency	Remarks
Commode Chairs Single patient use	LLD	<ul style="list-style-type: none"> when soiled 	<ul style="list-style-type: none"> ideally dedicated to each patient patients with VRE or <i>C. difficile</i> must have dedicated commode for <i>C. difficile</i>, clean with a sporicidal agent remove gross soil and fluids before cleaning and disinfection
Multiple patient use	LLD	<ul style="list-style-type: none"> when soiled between patients 	<ul style="list-style-type: none"> remove gross soil and fluids before cleaning and disinfection
CPR Training Mannequins	LLD		
Defibrillator	See Resuscitation Cart		
Diagnostic Imaging Portable - Machine	CL	<ul style="list-style-type: none"> when soiled and on leaving Contact Precautions room 	
Portable - portable grid/film cassette	LLD	<ul style="list-style-type: none"> between patients if not covered 	<ul style="list-style-type: none"> ideally should be covered (e.g., pillowcase)
Mammography - paddles	LLD	<ul style="list-style-type: none"> between patients 	
Dopplers Transducers	CL	<ul style="list-style-type: none"> after each use 	<ul style="list-style-type: none"> wipe immediately after use to remove residual ultrasound gel before cleaning
Probes	LLD	<ul style="list-style-type: none"> after each use 	<ul style="list-style-type: none"> probes that contact mucous membranes or non-intact skin require high-level disinfection
ECG Machine	CL	<ul style="list-style-type: none"> between patients 	
Leads, Cups	LLD	<ul style="list-style-type: none"> between patients 	
Electric Razor Razor body and Handle	CL	<ul style="list-style-type: none"> as required 	<ul style="list-style-type: none"> must be single patient use or disposable
Examination Table	LLD	<ul style="list-style-type: none"> between patients and when soiled 	

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Item	Minimum Cleaning and Disinfection Level: CL = Clean only LLD = Clean + Low-Level Disinfectant	Minimum Frequency	Remarks
Glucometer	LLD	<ul style="list-style-type: none"> after each use 	
Hydraulic Lift Machine	CL	<ul style="list-style-type: none"> as required 	
Sling	CL	<ul style="list-style-type: none"> between patients and when soiled 	<ul style="list-style-type: none"> slings should be washable between users, dedicated or disposable launder if visibly soiled
Infusion Pumps, Tube Feeding Pumps	LLD	<ul style="list-style-type: none"> between patients and when soiled 	
Intravenous (IV) Pumps, Poles, Warmers	LLD	<ul style="list-style-type: none"> between patients and when soiled 	
Laryngoscope Handle	CL	<ul style="list-style-type: none"> between patients 	<ul style="list-style-type: none"> laryngoscope blade requires high-level disinfection after each use
Measuring Container (urine) Single patient use	CL	<ul style="list-style-type: none"> after each use 	
Multiple patient use	LLD	<ul style="list-style-type: none"> after each use 	<ul style="list-style-type: none"> one container per patient, labelled with name
Ophthalmoscope Handle	CL	<ul style="list-style-type: none"> between patients 	
Otoscope Handle	CL	<ul style="list-style-type: none"> between patients 	<ul style="list-style-type: none"> use disposable ear specula or high-level disinfection
Orthopedic Equipment Crutches, traction etc.	CL	<ul style="list-style-type: none"> between patients 	
Oximeter Probes and Machine	LLD	<ul style="list-style-type: none"> minimum daily and between patients 	<ul style="list-style-type: none"> refer to manufacturer's instructions for cleaning
Reflex Hammer	CL	<ul style="list-style-type: none"> between patients 	
Restraints	CL or disposable	<ul style="list-style-type: none"> between patients and when soiled 	<ul style="list-style-type: none"> launder according to manufacturer's instructions

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Item	Minimum Cleaning and Disinfection Level: CL = Clean only LLD = Clean + Low-Level Disinfectant	Minimum Frequency	Remarks
Resuscitation Cart/Arrest Cart	CL	<ul style="list-style-type: none"> minimum weekly and after each use 	<ul style="list-style-type: none"> avoid taking cart into Contact Precautions room, have a designated clean person to pass supplies as required
Defibrillator	LLD	<ul style="list-style-type: none"> after each use 	
Supplies/Trays	CL	<ul style="list-style-type: none"> after each use 	
Scales			
Adult	CL	<ul style="list-style-type: none"> daily and when soiled 	
Diaper	LLD	<ul style="list-style-type: none"> after each use 	
Infant/Neonate	LLD	<ul style="list-style-type: none"> after each use 	<ul style="list-style-type: none"> do not use phenolics
Stretcher	LLD	<ul style="list-style-type: none"> after each use 	
Stethoscope	LLD	<ul style="list-style-type: none"> after each use 	<ul style="list-style-type: none"> ideally use own stethoscope
Suction Machines	LLD	<ul style="list-style-type: none"> when soiled between patients 	
TcPO₂/PCO₂ Probes, Cables	LLD	<ul style="list-style-type: none"> between patients 	
Telemetry Equipment Monitor and Cables	CL	<ul style="list-style-type: none"> when soiled between patients 	
Thermometer and Holder			
Electronic	LLD	<ul style="list-style-type: none"> when soiled minimum daily 	<ul style="list-style-type: none"> glass thermometers are semi-critical items
Tourniquet	LLD	<ul style="list-style-type: none"> between patients or disposable 	<ul style="list-style-type: none"> discard when soiled
Transfer Boards	LLD	<ul style="list-style-type: none"> between patients when soiled 	
Transport Equipment			
Walker	LLD	<ul style="list-style-type: none"> after each use 	
Wheelchair	LLD	<ul style="list-style-type: none"> after each use 	

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Item	Minimum Cleaning and Disinfection Level: CL = Clean only LLD = Clean + Low-Level Disinfectant	Minimum Frequency	Remarks
Tube Feeding Pumps	See Infusion Pumps		
Ultrasound Transducers Handle and Cable External	LLD LLD	<ul style="list-style-type: none"> between patients between patients 	<ul style="list-style-type: none"> use high-level disinfection for transducer probes
Urinal	See Bedpan		
Urine Measuring Container	See Measuring Container		
Vacutainer Holder	CL	<ul style="list-style-type: none"> disposable or between patients 	<ul style="list-style-type: none"> ideally, single patient use discard if visibly soiled
Ventilator	CL	<ul style="list-style-type: none"> daily 	
Walker	See Transport Equipment		
Wall-mounted Oxygen and Suction Fixtures	CL	<ul style="list-style-type: none"> between patients when soiled 	
Water Jug	CL	<ul style="list-style-type: none"> daily 	<ul style="list-style-type: none"> ideally, cleaned in a dishwasher
Wheelchair	See Transport Equipment		

Adapted from:

Ontario Ministry of Health and Long-Term Care. Provincial Infectious Diseases Advisory Committee. *Best Practices for Environmental Cleaning in All Health Care Settings*. December 8, 2009.

College of Respiratory Therapists of Ontario. Infection Prevention & Control Clinical Practice Guideline; 2008.

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