



Instrument Processing

EXPERT RURAL HEALTH CONSULTANTS



Participants will:

- Consider different methods for sterile supplies
- Understand infection control implications for each method
- Review policy and competency at the clinic to confirm compliance

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Sterile Supplies:

- Disposable instruments
- Send out for sterilization
- Autoclave
- **CAUTION: Cold Sterilization**

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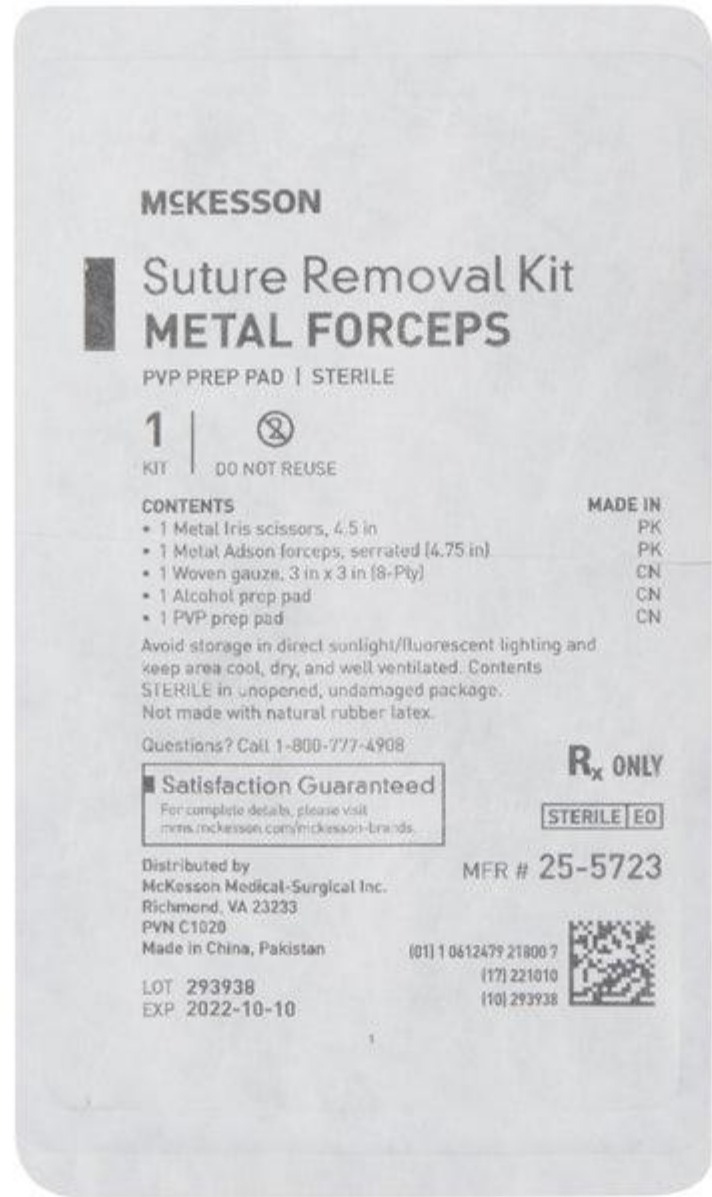


Disposable Instruments:

- Easiest path to compliance
- Consider “costs”
- Appropriate storage
- Single-use
 - Full package removed after it is open
- Outdates

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MCKESSON

Suture Removal Kit
METAL FORCEPS

PVP PREP PAD | STERILE

1 KIT | DO NOT REUSE

CONTENTS

- 1 Metal Iris scissors, 4.5 in
- 1 Metal Adson forceps, serrated (4.75 in)
- 1 Woven gauze, 3 in x 3 in (8-Ply)
- 1 Alcohol prep pad
- 1 PVP prep pad

MADE IN
PK
PK
CN
CN
CN

Avoid storage in direct sunlight/fluorescent lighting and keep area cool, dry, and well ventilated. Contents STERILE in unopened, undamaged package. Not made with natural rubber latex.

Questions? Call 1-800-777-4908

Satisfaction Guaranteed
For complete details, please visit
www.mckesson.com/mckesson-brands.

R_x ONLY

STERILE EO

Distributed by
McKesson Medical-Surgical Inc.
Richmond, VA 23233
PVN C1020
Made in China, Pakistan

MFR # 25-5723

LOT 293938
EXP 2022-10-10

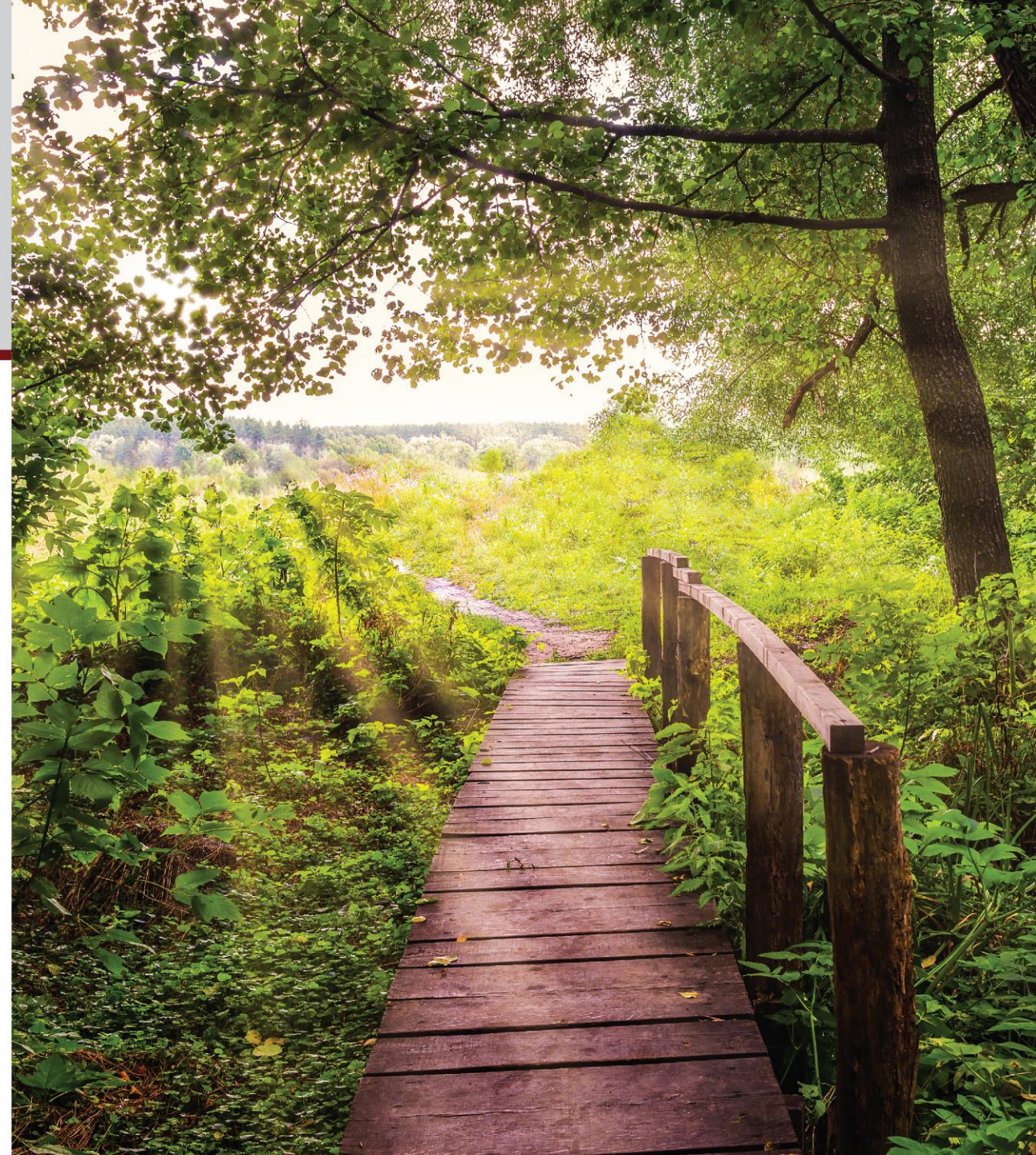
(01) 1 0612479 21800 7
(17) 221010
(10) 293938



Send Out:

- Who is responsible
- Actions On/Off site
- Equipment needed to transport
 - Container that snaps shut
 - Bio-hazard label
- Chemicals used at the clinic

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Send Out:

- Accepting instruments back
- Staff understanding:
 - Packaging is not damaged
 - Indicator that instrument reached sterilization
 - Timeline (event related?)
 - Instruments in open position
 - Appropriate storage in clinic



Autoclave:

- Manufacturer's Guidance
- Documentation
 - Batch log
 - Contents
 - Spore checks
 - Cleaning of equipment
 - Replacement of chemical
- Packaging system
 - Date vs. Event

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Caring for Your Ultraclave & Autoclave Sterilizer



WEEKLY

WARNING
To prevent burns, allow unit to cool before cleaning.

1. CLEAN EXTERNAL SURFACES

(a) Wipe with a soft dry cloth and occasionally with a damp cloth and mild soap or detergent.

2. CLEAN INTERNAL SURFACES

(a) Drain water from reservoir using drain tube located on front of unit.

EQUIPMENT ALERT
Failure to change water promotes growth of algae in reservoir and may cause sterilizer to malfunction.

(b) Clean trays, door gasket, metal surfaces and inside of chamber with **Speed-Clean Sterilizer Cleaner** and distilled water. Inspect door gasket for damage that could prevent proper sealing.

(c) Refill reservoir with clean, distilled water.

3. DISINFECTING: (Refer to Installation/Operation manual)

MONTHLY

EQUIPMENT ALERT
Failure to flush unit with **SPEED-CLEAN STERILIZER CLEANER**, or use of other sterilizer cleaners may cause some components in unit to fail prematurely.

1. FLUSH SYSTEM

(a) Drain reservoir and fill with clean distilled water. Add 1 oz. of **Speed-Clean Sterilizer Cleaner** to a cool chamber (A).

(b) Run one **POUCHES** cycle. Press **STOP** button when **Drying** portion of cycle begins.

WARNING
Instruments should not be sterilized while cleaning the sterilizer.

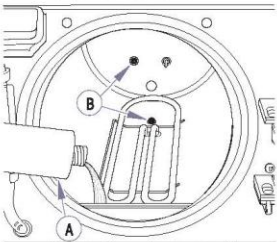
(c) Drain reservoir and refill reservoir with clean, distilled water.

(d) Rinse by running one **UNWRAPPED** cycle.

(e) Drain reservoir and allow sterilizer to cool to room temperature.

(f) Remove door gasket, dam gasket and gasket ring. Clean with **Speed-Clean Sterilizer Cleaner** and clean, distilled water. A small stiff bristle brush will aid procedure. After cleaning gaskets, inspect for damage, shrinking, or swelling and replace if necessary. Press gasket and ring into the channel and reinstall dam gasket.

(g) Remove trays, tray rack, and tray plate. Pressing downward on top band of tray rack, pull upward on end of tray plate and slide assembly out of chamber.



Rack and trays shown removed.

(h) Locate chamber filters (B) on bottom and back of chamber. Grasp filter and pull outward while twisting slightly. (If necessary, a pair of pliers may be used). Filter may be cleaned with **Speed-Clean Sterilizer Cleaner** and clean, distilled water. A small stiff bristle brush or ultrasonic cleaner may be helpful to remove foreign objects from filter surface. Rinse filter with clean, distilled water. **NOTE - If cleaning methods do not effectively clean the filter, replacement may be necessary.** Reinstall filters by pressing inwards and twisting slightly.

EQUIPMENT ALERT
Do not operate sterilizer without filters in place.

(i) Wipe off trays, tray rack, and tray plate. Reinstall assembly by placing back edge of tray plate in chamber. Pushing downward on top of tray rack, slowly push assembly into chamber.

EQUIPMENT ALERT
Angled end of plate must be toward back of chamber to prevent interference with temperature probe in back of chamber.

(j) Fill the reservoir with clean, distilled water. Sterilizer is now ready for use.

2. PRESSURE RELIEF VALVE CHECK

Refer to Installation and Operation Manual for this procedure.

To activate warranty:
Insert CD, then select **Product Registration*** from the menu.

Remember to ask your dealer for Speed-Clean Sterilizer Cleaner.

• **Français :** Référez-vous à CD-Rom

• **Deutsch:** Siehe CD-Rom

• **Español:** Refiera a CD-Rom

(*Midmark recommends product registration for all Class II devices.)

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P.O. Box 286
Versailles, Ohio 45380-0286
1-800-MIDMARK
Fax 937-526-9542
midmark.com

004-0339-00 Rev. H

Operating Your Ultraclave & Autoclave Sterilizer

PRE PROGRAMMED OPERATION

STEP 1 Select and press the appropriate sterilization preprogrammed button.

{NOTE: Refer to Standard Cycle Parameters (below) to select the proper sterilization program time and temperature.}

STEP 2 Press the **START** button.

WARNING
Stop button may be depressed at any time to stop or interrupt a cycle. Contents are not sterile if this occurs before the dry cycle begins.

PROGRAMMING

STEP 1 Press button 1 or 2.

STEP 2 Press **PROGRAM** button.

{NOTE: Sterilization temperature can be adjusted from a minimum of 230°F {110°C} to maximum 275°F {135°C}.

The **+** button raises temperature 1°.

The **-** button lowers temperature 1°.

{NOTE: If **STOP** button is pressed anytime during the Programming Mode any settings entered will be aborted and programming will revert back to the original settings.}

STEP 3 Press **PROGRAM** button.

{NOTE: Sterilization time can be adjusted from a minimum of 3 minutes to maximum 90 minutes.}

The **+** button raises time 1 minute.

The **-** button lowers time 1 minute.

STEP 4 Press **PROGRAM** button.

The **+** button changes venting to **FAST**.

The **-** button changes venting to **SLOW**.

STEP 5 Press **PROGRAM** button.

{NOTE: Drying Time can be adjusted from a minimum of 0 minutes to a maximum of 60 minutes.}

The **+** button raises time 1 minute.

The **-** button lowers time 1 minute.

STEP 6 Press **PROGRAM** button.

The display shows the new programmed settings for the button that was programmed, 1 or 2.

{NOTE: The programmed settings entered are retained under that Program button (1 or 2). If power is interrupted or the unit is unplugged, the settings will be retained.}

STANDARD CYCLE PARAMETERS

EQUIPMENT ALERT
Using an incorrect sterilization program could result in non-sterile contents and may damage instruments. Consult instrument manufacturer for specific sterilization instructions.

EQUIPMENT ALERT
Trays must be used at all times when operating this sterilizer, serious equipment damage could result.

	Unwrapped	270°F (132°C) 27.1 psi (186 kPa) Sterilize for 3 minutes Dry for 30 minutes	<ul style="list-style-type: none"> Instruments loose on a tray. Open glass or metal canisters. Tubing not used in surgical procedures. Loose items manufacturers recommend for exposure at 270°F (132°C). <p>The sterility of unwrapped items is compromised on exposure to a non-sterile environment.</p>
	Pouches	270°F (132°C) 27.1 psi (186 kPa) Sterilize for 5 minutes Dry for 30 minutes	<ul style="list-style-type: none"> Pouched or loosely wrapped instruments. Wrapped trays of loose instruments. Tubing not used in surgical procedures. Wrapped items manufacturers recommend for exposure at 270°F (132°C).
	Packs	250°F (121°C) 15 psi (104 kPa) Sterilize for 30 minutes Dry for 30 minutes	<ul style="list-style-type: none"> Textiles and surgical packs wrapped for sterilization. Items, except liquids, manufacturers recommend for exposure at 250°F (121°C).
	Handpieces	270°F (132°C) 27.1 psi (186 kPa) Sterilize for 6 minutes Dry for 30 minutes	<ul style="list-style-type: none"> Dental handpieces. Loose or wrapped dental handpieces manufacturers recommend for exposure at 270°F (132°C).
1	Program	<u>Programmable User Defined</u> 230°F (110°C) to 275°F (135°C)	<ul style="list-style-type: none"> Items appropriate for user defined parameters. <p>CAUTION Temperatures below 250°F (121°C) should not be used for disinfection unless otherwise recommended by the device manufacturer.</p>
2	Program	6 psi (41 kPa) to 31 psi (214 kPa) Sterilize for 3 min. to 90 min. Dry for 0 to 60 min.	

OVER FOR MAINTENANCE

OVER FOR OPERATION

Qualification Testing Your sterilizer should be tested after sterilizer installation, malfunctions, relocation, major repairs, and after sterilization process failure. Qualification testing should be performed prior to placing the sterilizer in service. If multiple cycle types are used, e.g. “Pouches” and “Packs” each cycle type should be qualified. Qualification testing should include at least one Biological Indicator (BI) (sometimes referred to as **Spore Tests**) and one Chemical Indicator (CI). The test pack should be placed on the bottom tray near the chamber door and performed with items routinely processed and considered to be the most difficult to sterilize. Additional items should be placed in the chamber along with the Biological Indicator and Chemical Indicator so that chamber is fully loaded (don’t exceed the maximum capacities listed in the tables under “Guidelines for Loading” in this manual). Three consecutive test runs for each cycle type tested, with negative results from the BIs, and the appropriate readings from all physical monitors and chemical indicators demonstrating complete sterilization, provide verification that the sterilizer has been properly installed (or reinstalled after relocation) or repaired to the manufacturer’s specifications and that it will function effectively in the facility in which it is installed. All items processed during qualification testing should be quarantined until the results of the biological testing are available.

(M9/M11 Steam Sterilizer Startup Procedures pg. 4)

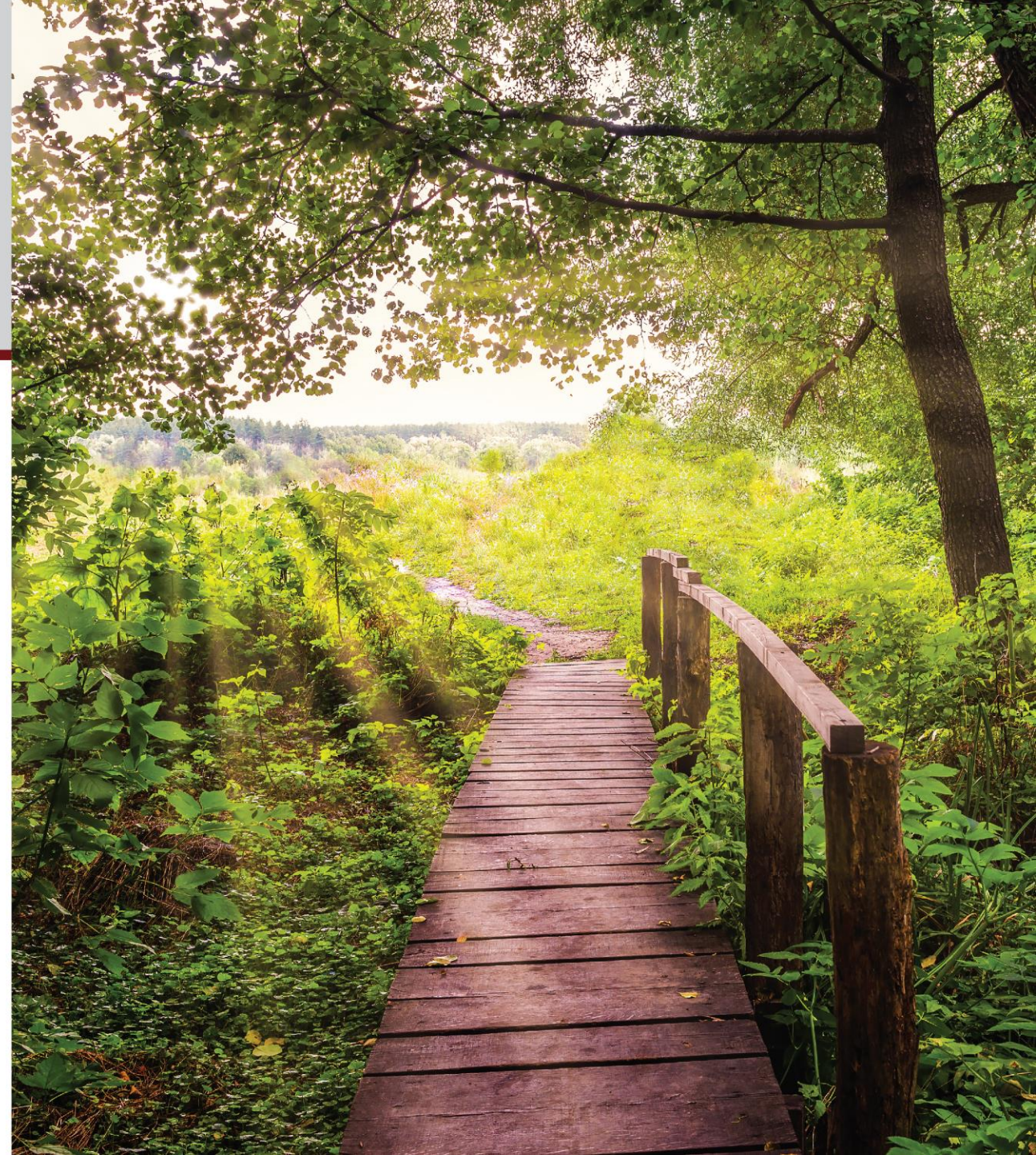


- McKesson Autoclave Pouches - Self Sealing
- 5-1/4 X 10 Inch
- For use with Steam and Ethylene Oxide (EO) Sterilizers
- They are self-sealing, which makes them easy to open and close
- No autoclave tape necessary
- **Internal and external chemical indicators**
- Lead free ink
- Not made with natural rubber latex.
- 200 Pouches Per Box, 10 Boxes Per Case
- Time Related (**6 Months from time of sterilization**)

Infection Control Resources:

- <https://www.cdc.gov/infectioncontrol/guidelines/disinfection/index.html>

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Cleaning of Patient-Care Devices

Recommendations for Cleaning of patient-care devices: by ID number and category.

#	Recommendation	Category
2.a.	In hospitals, perform most cleaning, disinfection, and sterilization of patient-care devices in a central processing department in order to more easily control quality.	II
2.b.	Meticulously clean patient-care items with water and detergent, or with water and enzymatic cleaners before high-level disinfection or sterilization procedures.	IB
2.b.i.	Remove visible organic residue (e.g., residue of blood and tissue) and inorganic salts with cleaning. Use cleaning agents that are capable of removing visible organic and inorganic residues.	IB
2.b.ii.	Clean medical devices as soon as practical after use (e.g., at the point of use) because soiled materials become dried onto the instruments. Dried or baked materials on the instrument make the removal process more difficult and the disinfection or sterilization process less effective or ineffective.	IB
2.c.	Perform either manual cleaning (i.e., using friction) or mechanical cleaning (e.g., with ultrasonic cleaners, washer-disinfector, washer-sterilizers).	IB
2.d.	If using an automatic washer/disinfector, ensure that the unit is used in accordance with the manufacturer's recommendations.	IB
2.e.	Ensure that the detergents or enzymatic cleaners selected are compatible with the metals and other materials used in medical instruments. Ensure that the rinse step is adequate for removing cleaning residues to levels that will not interfere with subsequent disinfection/sterilization processes.	II
2.f.	Inspect equipment surfaces for breaks in integrity that would impair either cleaning or disinfection/sterilization. Discard or repair equipment that no longer functions as intended or cannot be properly cleaned, and disinfected or sterilized.	II

Indications for
Sterilization,
High-Level
Disinfection, and
Low-Level
Disinfection

Indications for sterilization and disinfection: by ID number and category.		
#	Recommendation	Category
3.a.	Before use on each patient, sterilize critical medical and surgical devices and instruments that enter normally sterile tissue or the vascular system or through which a sterile body fluid flows (e.g., blood). See recommendation 7g for exceptions.	IA
3.b.	Provide, at a minimum, high-level disinfection for semicritical patient-care equipment (e.g., gastrointestinal endoscopes, endotracheal tubes, anesthesia breathing circuits, and respiratory therapy equipment) that touches either mucous membranes or nonintact skin.	IA
3.c.	Perform low-level disinfection for noncritical patient-care surfaces (e.g., bedrails, over-the-bed table) and equipment (e.g., blood pressure cuff) that touch intact skin (see Recommendation 5g).	II

Selection and Use of Low-Level Disinfectants for Noncritical Patient-Care Devices

Recommendations for Selection and use of low-level disinfectants for noncritical patient-care devices: by ID number and category.

#	Recommendation	Category
4.a.	Process noncritical patient-care devices using a disinfectant and the concentration of germicide listed in Table 1 .	IB
4.b.	Disinfect noncritical medical devices (e.g., blood pressure cuff) with an EPA-registered hospital disinfectant using the label's safety precautions and use directions. Most EPA-registered hospital disinfectants have a label contact time of 10 minutes. However, multiple scientific studies have demonstrated the efficacy of hospital disinfectants against pathogens with a contact time of at least 1 minute. By law, all applicable label instructions on EPA-registered products must be followed. If the user selects exposure conditions that differ from those on the EPA-registered product label, the user assumes liability from any injuries resulting from off-label use and is potentially subject to enforcement action under FIFRA.	IB
4.c.	Ensure that, at a minimum, noncritical patient-care devices are disinfected when visibly soiled and on a regular basis (such as after use on each patient or once daily or once weekly).	II
4.d.	If dedicated, disposable devices are not available, disinfect noncritical patient-care equipment after using it on a patient who is on contact precautions before using this equipment on another patient.	IB

Sample Policy Language:

1. All sterile supplies will be examined for expiration date every month and before each use.
2. Supplies that remain in sealed manufacturer's packaging will be considered sterile in accordance with the packaging information or dating.
3. All sterile supplies that are outdated will be **disposed of / re-sterilized** in accordance with OSHA regulations.
4. Sterilizing procedure:

DISPOSABLE LANGUAGE:

- The clinic utilizes disposable instruments only.

AUTOCLAVE LANGUAGE

- The clinic will follow the operation and maintenance guidelines outlined in the autoclave manufacturer's manual.
- Please see the manufacturer's guidelines for all cleaning and operating directions.
- Sterile items must be sterilized and stored in the open position.

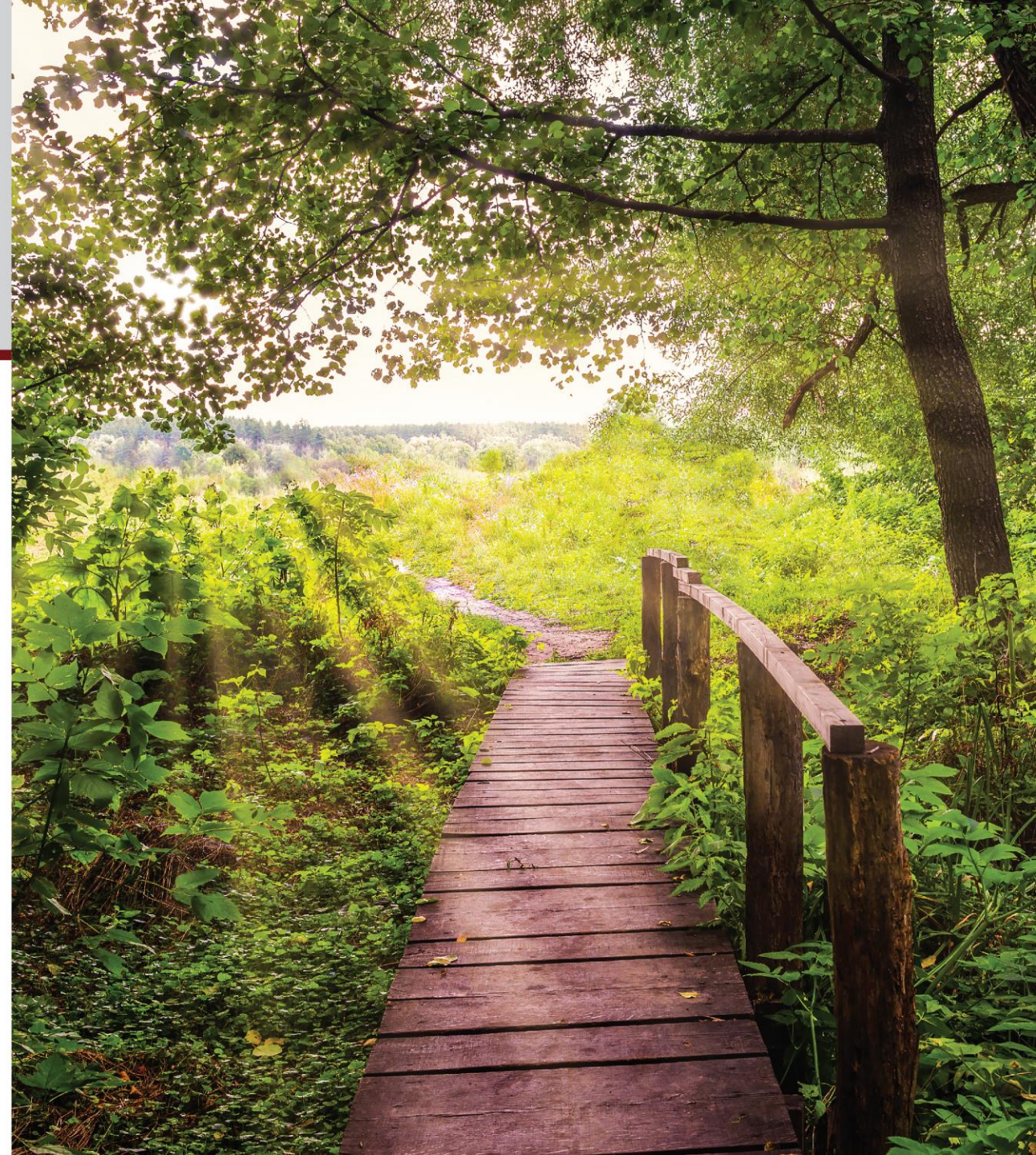
SEND OUT LANGUAGE-

- The clinic prepares instruments using CHEMICAL and will send them to LOCATION for appropriate sterilization.
- Staff will review instruments coming back into the clinic to confirm:
 - They were sterilized in the open position
 - Packages are not damaged
 - Instruments are free of any visible debris

5. Any break in the integrity of the packaging is cause for **disposal / re-sterilization** of the instruments.

Cautions:

- Disinfectant vs. sterilization chemicals
- Ventilation requirements
- PPE requirements



Recommendations:

- Develop workflows and protocols to confirm sterilization is met and documented
- Train designated staff on requirements
- Document competency on established processes





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