EVIS EXERA III DUODENOVIDEOSCOPE TJF-Q190V

OnTrack Reprocessing In-Service/Customer Competency

NOTE: This checklist is designed for use solely as a customer educational tool and is not intended to replace or in any way modify the olympus instruction manual/reprocessing manual. be sure to follow the detailed steps outlined in the reprocessing manual that was included with your olympus equipment when purchased. while olympus' training may be used in support of a facility's overall competency program, it shall not constitute certification of the facility's reprocessing protocol. olympus shall in no event be held responsible for a facility's proper performance of reprocessing protocol nor for a facility staying current with ongoing reprocessing instructional changes and corresponding training updates. facility owners of olympus equipment are fully responsible for complying with industry reprocessing standards and manufacturer's proper use and reprocessing instructions.

Olympus In-Service (For In-Service, the Olympus Field Employee must complete the Facility Information below and the **FM-SOP-020-02: OnTrack In-Service Attendance Sheet**)

Facility Information

Facility Name:_____

Date of training:_____

Facility address:_____

City:_____ Province:_____ Postal Code:_____

Facility-Verified Customer Competency (For competency, the facility staff must complete both Facility Attendee and Verifier information below)

Facility Attendee

Print Name:_____

Signature:_____

Date:_____ Title:_____

Email:_____

Facility Verifier

Print Name:_____

Signature:_____

Date:_____ Title:_____

Email:_____

For assistance, call the OCI Technical Support at 1-888-387-4022 or email ocitechsupport@olympus.com.

CONTINUED ON NEXT PAGE

EVIS EXERA III DUODENOVIDEOSCOPE TJF-Q190V

OnTrack Reprocessing In-Service/Customer Competency

OnTrack In-Service Attendance Sheet

	Name (Print)	Email	Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

CONTINUED ON NEXT PAGE

For assistance, call the OCI Technical Support at 1-888-387-4022 or email ocitechsupport@olympus.com

Regarding Non-Olympus Repair and Servicing

Instructions provided in this document are not valid for Olympus devices repaired by a non-Olympus facility. The Olympus-recommended reprocessing procedures have not been validated for reprocessing devices repaired by a non-Olympus facility. In the event that your device has been repaired by a non-Olympus facility, please contact that repair facility for instructions regarding reprocessing. Instructions provided in this document regarding material compatibility are not valid for Olympus devices repaired by a non-Olympus facility. Olympus repairs devices to manufacturer's specifications by using original equipment manufacturer's (OEM) materials. The use of non-OEM materials to repair an Olympus device may affect the material compatibility of the device with certain reprocessing chemicals or methods. In the event that your device has been repaired by a non-Olympus facility, please contact that repair facility for instructions regarding material compatibility.

CONTINUED ON NEXT PAGE

Trainer Instructions

Provide the OLYMPUS TJF-Q190V reprocessing manual to the trainees to follow and use during this training. Emphasize the importance of following the instructions as written in the reprocessing manual, and that failure to do so may result in improperly reprocessed devices and patient infection, device damage, and/or lowered device function.

Encourage trainees to take notes in their reprocessing manual and remind them that they should continue to use the reprocessing manual once they complete training.

Encourage trainees to ask questions at any time if they have any uncertainty, or if they would like to learn more about a particular process.

Using OnTrack:

- Demonstrate all steps for trainees, and have trainees perform a hands-on return demonstration of all steps.
- When encountering a repeat step, trainees may simply perform the hands-on step rather than requiring the trainer to demonstrate the same step again.
- Unless otherwise stated, trainees should read the reprocessing manual step by step to demonstrate all steps.
- The steps which the customer does not adopt can be skipped.
- This training is to enable the trainee to perform appropriate reprocessing with the help of training tools such as reprocessing manual. Ensure the trainee understand how to use the training tools (reprocessing manual).

CONTINUED ON NEXT PAGE

OnTrack format

This guide uses the following format and conventions to help guide the training and ensure certain points are emphasized:

Subsection title: This symbol indicates a new subsection. Subsections align with the OLYMPUS TJF-Q190V reprocessing manual.

Reminders!: Reminders convey important information, including safety information and general techniques and tips to remember before and while conducting steps in the section. The trainer should convey all reminders to the trainees.

Sub-subsection title: This symbol indicates a new sub-subsection. Subsections align with the OLYMPUS TJF-Q190V reprocessing manual.

Steps: Each section will include steps that align with the OLYMPUS TJF-Q190V reprocessing manual.

Steps that are underlined are steps that are new to this model and must be demonstrated.

The paper and pencil icon will appear next to steps that include training notes. Training notes will be in italic text. Training notes convey general techniques, or safety information that should be conveyed or emphasized during training.

Section complete: ○ **YES** | ○ **NO**

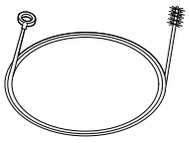
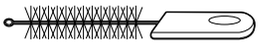
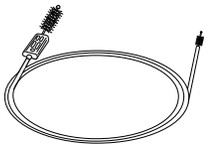
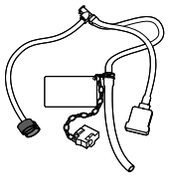
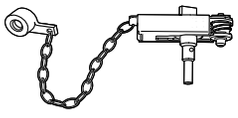
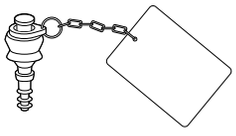
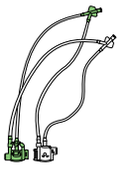
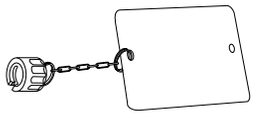
At the end of each subsection, mark if the training was completed successfully (Yes) or not (No). If “No,” document why. Use this space to document any additional notes, including if the trainee struggled to understand or perform any specific steps.

CONTINUED ON NEXT PAGE

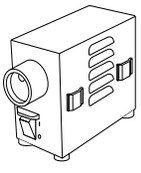
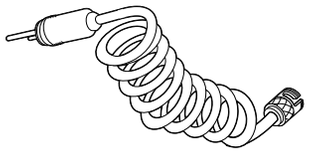
Equipment required for reprocessing

The following accessories and equipment are required to perform the reprocessing steps described in this chapter.

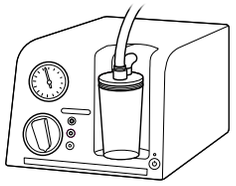
Accessories for reprocessing:

 **Channel cleaning brush (BW-20T)**	 **Channel-opening cleaning brush (MH-507)**	 **Single use combination cleaning brush (BW-412T)**
 **Suction cleaning adapter (MH-856)**	 **Injection tube (MH-946)**	 **Channel plug (MH-944)**
 **AW channel cleaning adapter (MH-948)**	 **Distal-end flushing adapter (MAJ-2319)**	 **ETO cap (MB-156)**

Accessories and equipment for leakage test:

 **Maintenance unit (MU-1) (Sold separately. Refer to its instruction manual.)**	 **Leakage tester (MB-155) (Sold separately. Refer to its instruction manual.)**

Equipment:

	**Suction pump (KV-6, KV-5, SSU-2) and suction tube (Sold separately. Refer to its instruction manual.)**

CONTINUED ON NEXT PAGE

2.7 Distal-end flushing adapter (MAJ-2319)

Reminders!

- Explain that before performing reprocessing, the trainee shall conduct an inspection of the accessories for reprocessing by following the reprocessing manual, because using accessories with irregularities may lower the effect of reprocessing or damage the endoscope.
- Ask the trainee if the accessories are called by the names specified in the reprocessing manual in the facility. If they are called differently, explain to the trainee about the specified names.

2.7.2 Inspection

Reminders!

The distal-end flushing adapter does not need to be reprocessed prior to its first use.

Steps:

Step 1: Separate the white and green covers, if they are assembled together.

Step 2: Confirm that all components of the distal-end flushing adapter are free from damage and debris.

Step 3: Place the distal-end flushing adapter in a clean basin (without water).

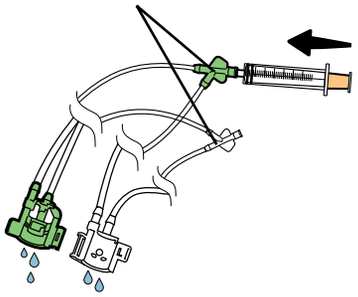
Step 4-6: Use a 30 mL syringe to flush water through each the WHITE and GREEN flushing ports. With each flush, confirm that water is emitted from openings in both the white and green covers.

Explain that the trainee should check that the water is emitted from the openings of both the white cover and the green cover because both flushing ports are connected to both the white and green covers.

Step 2

Step 4-6

Flush each port



CONTINUED ON NEXT PAGE

2.7.2 Inspection [Distal-end flushing adapter (MAJ-2319)] (continued)

Section complete: ○ **YES** | ○ **NO**

2.7.2 Inspection [Distal-end flushing adapter (MAJ-2319)]

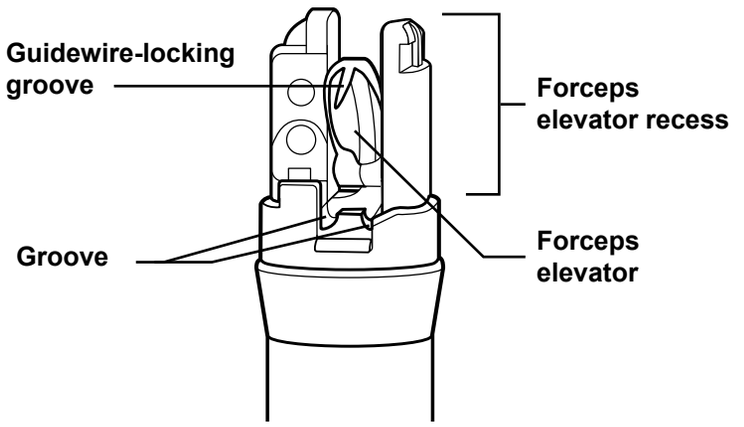
Comments

CONTINUED ON NEXT PAGE

5.1 Reprocess the Endoscope (and related reprocessing accessories), Summary

Reminders!

The surface and surrounding area of the TJF-Q190V endoscope's forceps elevator has a complex shape, featuring the groove, guidewire-locking groove, and forceps elevator recess. Reprocess these parts and areas carefully, following the steps in Chapter 5 "Reprocess the Endoscope (and related reprocessing accessories)". Insufficient reprocessing may pose an infection control risk to the patient and/or operators.



5.3 Preclean the endoscope and accessories

Reminders!

- Preclean the endoscope and the accessories at the bedside immediately after each patient procedure. If the endoscope and accessories are not immediately cleaned after each patient procedure, residual organic debris will begin to dry and solidify, thereby hindering reprocessing efficacy.
- Explain the importance of following the instructions of the reprocessing manual. Not following the instructions may cause infection, device damage, or lowered device function.
- Explain that unlike other endoscopes, all steps of precleaning must be conducted for duodenoscopes before using an AER of any type.

CONTINUED ON NEXT PAGE

5.3.2 Prepare for precleaning

Reminders!

At the patient bedside, immediately after the patient procedure, with the endoscope still connected to the procedure equipment (i.e., the light source, video system center, and suction pump), perform the following precleaning steps.

Steps:

Step 1: Turn the video system center and light source OFF.

Step 2: Prepare a clean 2000 mL container filled with water (for reprocessing).

As described in Chapter 3.2, "Water (for reprocessing)," reprocessing water might be fresh, potable water, or processed water (e.g., filtered, deionized, or purified, to improve its chemical and/or microbiological quality).

Section complete:

○ YES | ○ NO

5.3.2 Prepare for precleaning

Comments

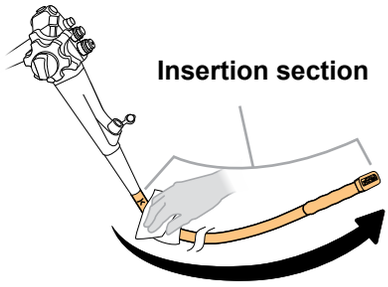
CONTINUED ON NEXT PAGE

5.3.3 Wipe the insertion section

Steps:

Step 1: Immerse clean lint-free cloths or sponges in the water.

Step 2: Wipe the endoscope's entire insertion section (i.e., from the control section's boot to the endoscope's distal end).



Section complete:

○ YES | ○ NO

5.3.3 Wipe the insertion section

Comments

CONTINUED ON NEXT PAGE

5.3.4 Detach the single use distal cover (MAJ-2315)

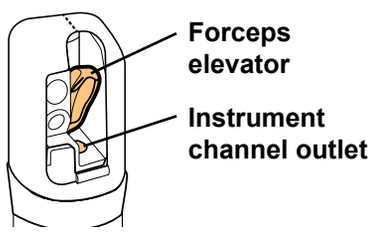
Reminders!

- When detaching the distal cover from the endoscope, hold the distal cover tightly. Otherwise, your fingers may slip and cause patient debris and/or fluid to splatter off, which may pose an infection control risk.
- Do not forcefully grasp other parts of the bending section when detaching the distal cover because it can result in damage to the bending section's mechanism or damage its covering.

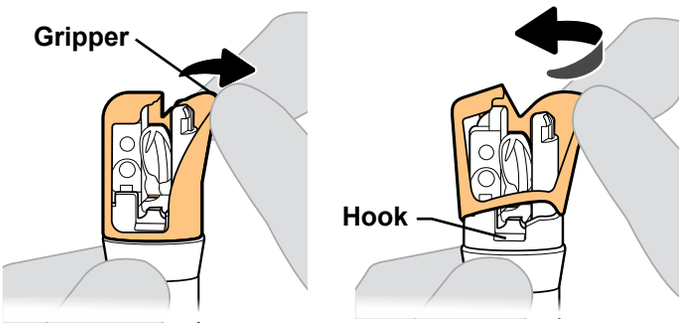
Steps:

Step 1: Ensure that the distal end's instrument channel outlet is fully open.

Step 1



Step 2-4: Remove and discard the single use distal cover in a biohazard container.



Describe the different approaches to removing the distal cover without damaging the distal end.

Step 5-6: Immerse a new, clean lint-free cloth in the water, and wipe the endoscope's distal end.

Section complete:

○ YES | ○ NO

5.3.4 Detach the single use distal cover (MAJ-2315)

Comments

CONTINUED ON NEXT PAGE

5.3.5 Aspirate water and air

Reminders!

Monitor the suction bottle on the suction pump carefully to ensure that it does not overflow.

Steps:

Step 1-2: If using the KV-6 or KV-5 suction pump, turn the suction to maximum and then turn the suction pump ON.

Demonstrate how the user might set the wrong vacuum setting (e.g., by not turning all the way to maximum).

Explain that not setting the suction pump to maximum may result in ineffective cleaning.

Step 3: Close the biopsy valve cap.

Step 4: Ensure that the distal end's instrument channel outlet is fully open.

Step 5: Immerse the endoscope's distal end in the water.

Step 6: Aspirate water for 30 seconds or more, as follows:

a) Depress and hold the suction valve (MH-443) on the endoscope.

b) While depressing the suction valve, move the elevator control lever in each direction three times to move the forceps elevator up and down.

Explain to keep the distal end fully immersed while aspirating.

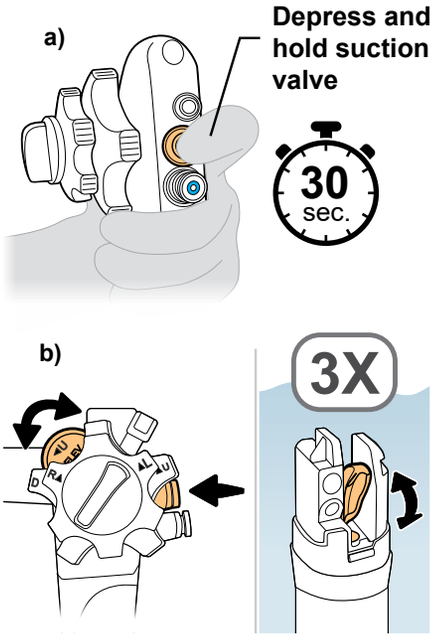
Remind to close and open the forceps elevator for a total of three times.

Step 7-8: Remove the distal end from the water, and depress the suction valve to aspirate air for 10 seconds or more.

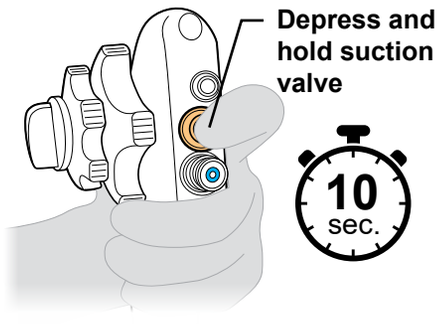
Step 9: Turn the suction pump OFF.

Explain to use a clock or timer to accurately measure time.

Step 6



Step 7-8



CONTINUED ON NEXT PAGE

5.3.5 Aspirate water (continued)

Section complete: ◯ YES | ◯ NO

5.3.5 Aspirate water

Comments

5.3.6 Flush the air/water channel with water and air

Reminders!

- After each patient procedure, to prevent the air/water nozzle from clogging, use the AW channel cleaning adapter (MH-948) to flush the endoscope's air channel with water.
- Do not apply lubricants to the AW channel cleaning adapter. Lubricants may cause malfunction of the AW channel cleaning adapter.

Steps:

Step 1: If using the endoscopic CO_2 regulation unit (UCR), ensure that the UCR's gas flow is stopped. If the UCR's gas flow is on, press the UCR start/stop switch to stop gas flow.

Step 2-3: Turn the light source ON, and set the light source's airflow to STBY to turn the airflow off.

CONTINUED ON NEXT PAGE

5.3.6 Flush the air/water channel with water and air (continued)

Step 4: Detach the air/water valve (MH-438) from the endoscope and place the air/water valve in the water.

Water may drip from the air/water cylinder when the air/water valve is detached. If this occurs, hold the control section higher than the water container. The water (i.e., sterile water in the water container) dripping from the air/water cylinder is clean.

Step 5-6: Attach the AW channel cleaning adapter (MH-948) to the endoscope's air/water cylinder, and immerse the endoscope's distal end in the water.

Step 7: Turn the light source's airflow regulator to HIGH.

Step 8: Turn the light source's airflow ON.

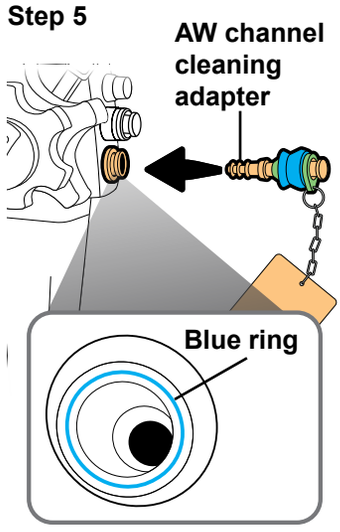
Step 9: Depress and hold the AW channel cleaning adapter's button for 30 seconds or more to flush the air channel with water from the water container.

Step 10: Release the AW channel cleaning adapter's button for 10 seconds or more to flush the air/water channel with air.

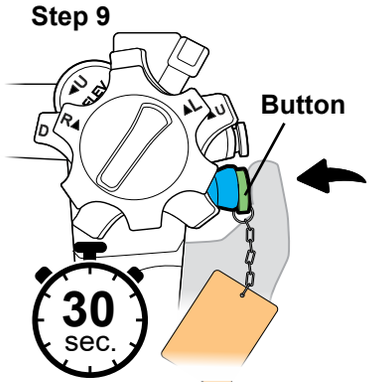
Step 11: Turn the light source OFF.

Explain to use a clock or timer to accurately measure time.

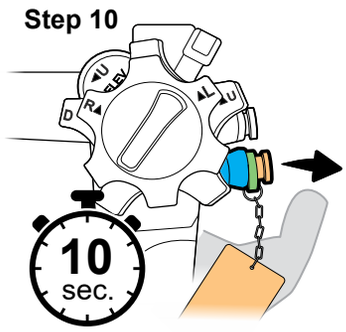
Step 5



Step 9



Step 10



Section complete:

○ YES | ○ NO

5.3.6 Flush the air/water channel with water and air

Comments

CONTINUED ON NEXT PAGE

5.3.7 Detach the suction tube and the water container's metal tip

Steps:

Step 1: Detach the suction tube from the endoscope connector's suction connector.

Step 2: Rotate the water container's metal tip (MAJ-901 or MAJ-902) counterclockwise and detach from the endoscope's air/water supply connectors.

Step 3: As described in the water container instruction manual, place the metal tip into the water container's tip receptacle.

Section complete: ○ **YES** | ○ **NO**

5.3.7 Detach the suction tube and the water container's metal tip

Comments

5.3.8 Detach the endoscope from the light source

Steps:

Step 1: Detach the endoscope connector from the light source.

Step 2: Transport the endoscope to the reprocessing area. Use a covered container to avoid environmental contamination if required by local policies.

Section complete: ○ **YES** | ○ **NO**

5.3.8 Detach the endoscope from the light source

Note: If the trainee only receives training for precleaning, proceed to the comprehension check to confirm the trainee understands question ID1 and question ID2.

Comments

CONTINUED ON NEXT PAGE

5.4 Leakage testing of the endoscope

Reminders!

Explain the importance of following the instructions of the reprocessing manual. Not following the instructions may cause infection, device damage, or lowered device function.

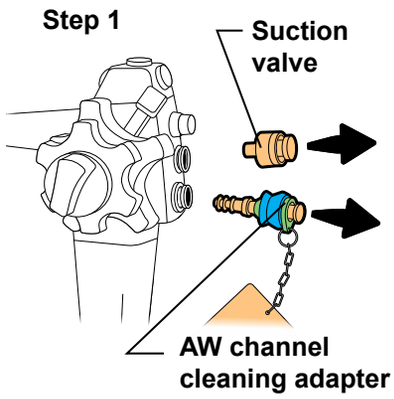
5.4.2 Detach the accessories from the endoscope

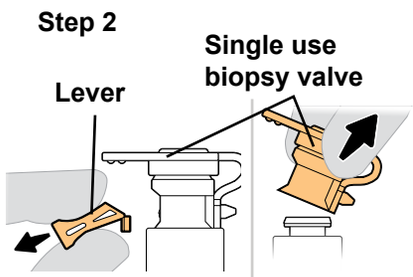
Steps:

Step 1: Detach the AW channel cleaning adapter (MH-948) and the suction valve (MH-443) from the endoscope and place them in the detergent solution.

Step 2: When using the single-use biopsy valve (e.g., MAJ-1555), detach the single-use biopsy valve from the endoscope and discard it.

Step 3: If using the biopsy valve (MB-358), detach the valve from the instrument channel port and place it in the detergent solution.





Section complete: ○ YES | ○ NO

5.4.2 Detach the accessories from the endoscope

Comments

CONTINUED ON NEXT PAGE

5.4.3 Perform the leakage test

Steps:

Step 1-2: Fill a clean, large basin with water, and connect the leakage tester to the maintenance unit.

Step 3-4: Turn the maintenance unit ON, and depress the pin inside the connector cap to confirm that air is being emitted.

Step 5: Ensure that both the leakage tester's connector cap and the endoscope's venting connector are dry.

Step 6: Attach the leakage tester's connector cap to the venting connector on the endoscope.

Do not attach/detach the leakage tester while immersing the endoscope in water because this could allow water to enter the endoscope, resulting in endoscope damage.

Step 7: With the leakage tester attached, immerse the endoscope in the water.

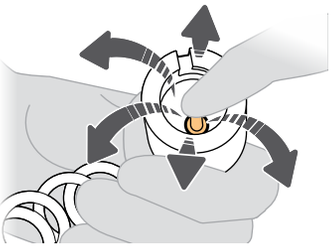
Step 8: Turn the endoscope's U/D and R/L angulation control knobs for 30 seconds or more in total and confirm that air bubbles do not emerge continuously or intermittently from the endoscope.

Confirm thorough immersion of the endoscope while performing Step 8 and Step 9.

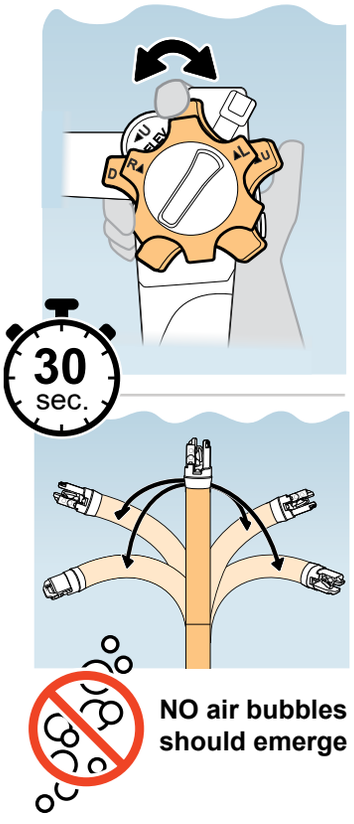
Explain that air bubbles may not always emerge continuously, but may emerge intermittently.

Explain to use a clock or timer to accurately measure 30 seconds or more.

Step 3-4



Step 8



CONTINUED ON NEXT PAGE

5.4.3 Perform the leakage test (continued)

Step 9: Move the endoscope's elevator control lever for 30 seconds or more and confirm that after 30 seconds NO air bubbles emerge continuously or intermittently around the endoscope's forceps elevator.

The elevator control lever must be moved during leakage testing to detect leaks that occur only when the forceps elevator is up or down. Use of an endoscope with a leak may pose an infection control risk.

Step 10-11: With the leakage tester attached, remove the endoscope from the water and turn the maintenance unit OFF.

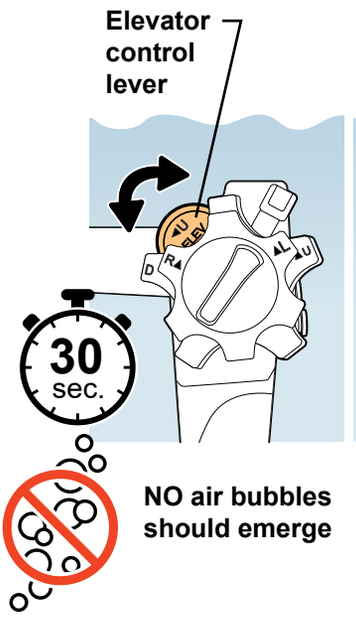
Step 12: Detach the leakage tester's connector from the maintenance unit.

Detach the leakage tester from the maintenance unit (MU-1) before detaching the leakage tester from the endoscope. If the leakage tester is detached from the endoscope before detaching the leakage tester from the maintenance unit, the air pressure inside the endoscope will not vent properly, which may damage the endoscope.

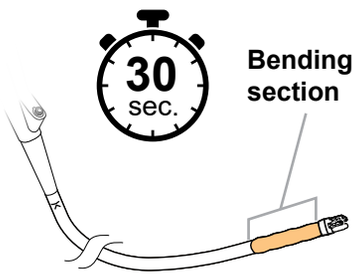
Step 13: Wait about 30 seconds until the bending section's covering contracts to its pre-expansion size.

Step 14-15: Detach the leakage tester from the endoscope, and thoroughly dry both connectors of the leakage tester using clean lint-free cloths.

Step 9



Step 13



Section complete:

○ YES | ○ NO

5.4.3 Perform the leakage test

Comments

CONTINUED ON NEXT PAGE

5.5 Manually clean the endoscope and accessories

Reminders!

- Explain the importance of following the instructions of the reprocessing manual. Not following the instructions may cause infection, device damage, or lowered device function.
- Explain that unlike other endoscopes, all steps of manual cleaning must be conducted for duodenoscopes before using an AER of any type.
- Ensure that you perform manual cleaning within 1 hour after the patient procedure. If manual cleaning cannot be performed within 1 hour after the patient procedure or if you are not sure whether manual cleaning was performed within 1 hour, presoak the endoscope in the detergent solution, as described in Chapter 5.9, “Presoak the endoscope”, before manually cleaning the endoscope.
- Once you immerse the endoscope, keep it immersed at all times when performing the cleaning steps, unless the instructions state otherwise. Holding the endoscope out of the fluid while cleaning may pose an infection control risk.
- To avoid splashing the detergent solution, keep the endoscope immersed in the detergent solution while brushing the forceps elevator and the forceps elevator recess.

5.5.2 Clean the endoscope’s external surfaces

5.5.2.1 Prepare for manual cleaning

Steps:

Step 1: Fill a clean, large basin with fresh detergent solution prepared as recommended by the manufacturer.

Explain that the trainee should confirm the detergent manufacturer’s instructions.

Step 2: Completely immerse the endoscope in detergent solution.

CONTINUED ON NEXT PAGE

5.5.2.2 Clean the endoscope's external surfaces

Steps:

Step 1: Keeping the endoscope immersed in the detergent solution, use clean lint-free cloths, sponges, or brushes, to thoroughly wipe or brush all the external surfaces of the endoscope's, insertion section, control section (including the universal cord's boot, the control section's boot), and endoscope connector and universal cord.

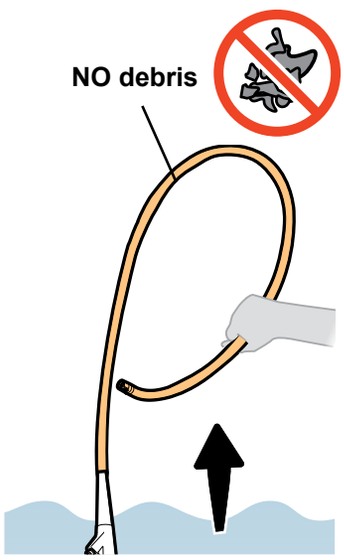
Ensure you keep the endoscope completely immersed while wiping or brushing.

Step 2: Remove each of the cleaned components from the detergent solution and confirm that no debris remains on the external surfaces of these parts.

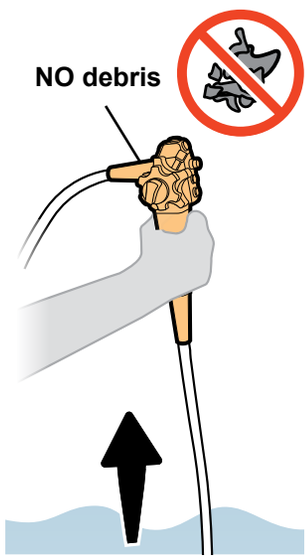
If any debris remains, repeat Steps 1 and 2 until no debris remains.

Step 3: When all debris is removed, put all parts back in the detergent solution.

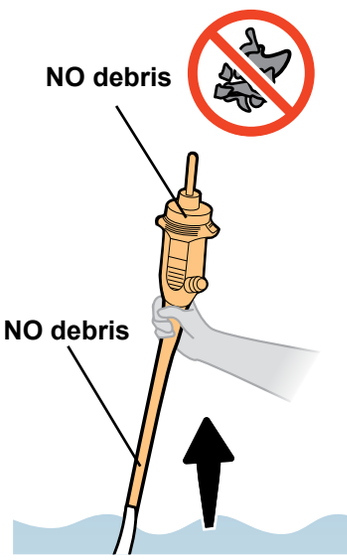
a) Insertion section



b) Control section



c) Endoscope connector and universal cord



Section complete: ○ YES | ○ NO

5.5.2 Clean the endoscope's external surfaces

Comments

CONTINUED ON NEXT PAGE

5.5.3 Brush the forceps elevator and forceps elevator recess

5.5.3.1 Brush the front of the forceps elevator

Steps:

Step 1: Select the correct brush and brush end.

Show the correct brush to use. Explain the difference between the two ends of the BW-412T brush.

Step 2-5: Brush the front of the forceps elevator, with the bending section straight and instrument channel open, inserting the brush into the instrument channel outlet until the brush handle touches. Pull the brush out. Repeat for a total of three times.

Step 6: Clean brush bristles.

Explain that this step is needed to prevent debris on the brush from reattaching to the endoscope during the next brushing steps.

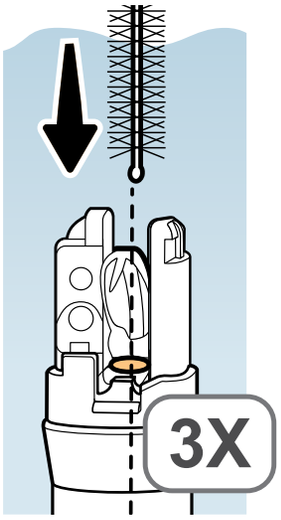
Explain to keep the brush immersed when cleaning the bristles.

Step 7: Brush the front of the forceps elevator, inserting the brush into the instrument channel outlet until the brush handle touches, and turn the brush one full rotation in each direction.

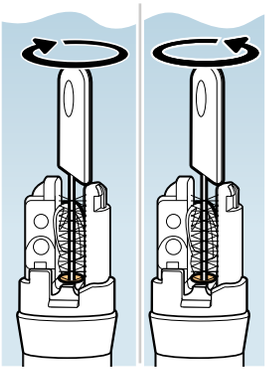
Step 8: Clean brush bristles.

Step 9-10: Confirm no debris remains. **If any debris remains, repeat brushing steps until no debris remains.**

Steps 2-5



Steps 7-8



5.5.3.2 Brush the back of the forceps elevator

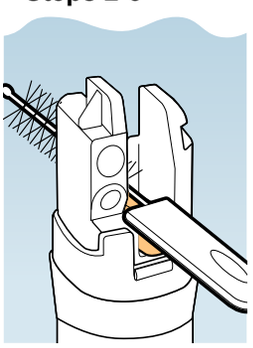
Steps:

Step 1: Close the instrument channel outlet.

Steps 2-3: Brush the back of the forceps elevator, then clean the brush bristles.

Step 4-5: Confirm no debris remains. **If any debris remains, repeat brushing steps until no debris remains.**

Steps 2-3



CONTINUED ON NEXT PAGE

5.5.3.3 Brush the distal end from the back side

Steps:

Step 1-3: Brush the bottom of the forceps elevator on the back side of the distal end, then clean brush bristles. Repeat for a total of three times.

Step 4-5: Brush the groove along the back of the forceps elevator, then clean brush bristles. Repeat for a total of three times.

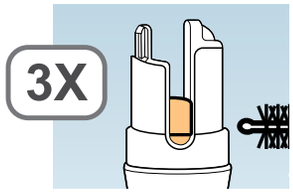
Step 6-7: Brush the forceps elevator recess, then clean brush bristles.

Step 8-9: Move the forceps elevator up and down three times.

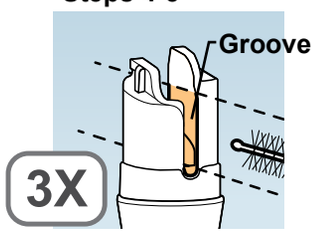
Explain that the instrument channel must be closed (i.e., the forceps elevator must be down) to examine the distal end for debris in the next step.

Step 10-12: Confirm no debris remains before opening the instrument channel outlet. **If any debris remains, repeat brushing steps until no debris remains, then open the instrument channel outlet.**

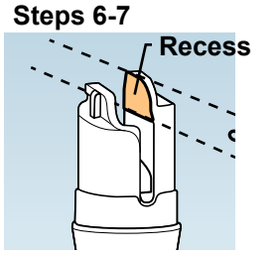
Steps 1-3



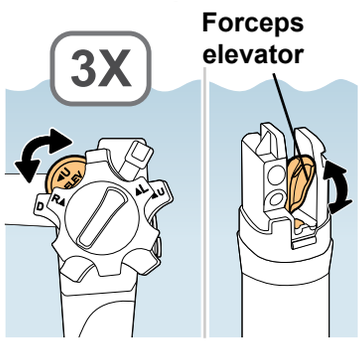
Steps 4-5



Steps 6-7



Steps 8-9



Section complete: ○ YES | ○ NO

5.5.3 Brush the forceps elevator and forceps elevator recess

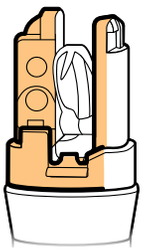
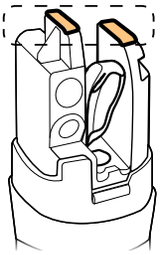
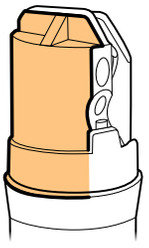
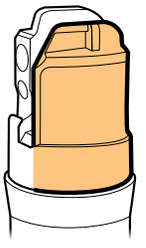
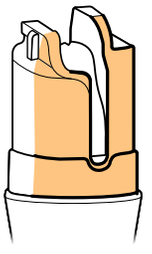
Comments

CONTINUED ON NEXT PAGE

5.5.4 Brush the endoscope's distal end and distal ring surfaces

Reminders!

This section describes how to brush the five external surfaces of the distal end and the distal end ring:

				
Front (Lens) side surface	**Distal surface**	**Left side surface**	**Right side surface**	**Back side surface**

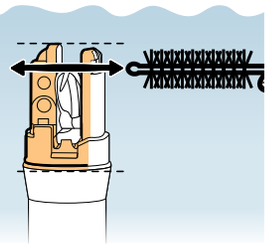
5.5.4.1 Brush the lens side surface of the distal end and the distal ring

Steps:

Step 1: Select the correct brush and brush end.

Show the correct brush to use. Explain the difference between the two ends of the BW-412T brush.

Steps 2-4



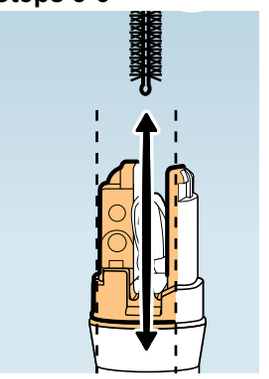
Step 2-4: Brush back and forth across the lens side surface of the distal end and the distal ring until no debris remains. Then clean the brush bristles.

Explain to brush not only the distal end but also the distal ring. Mention to pay particular attention to the air/water nozzle opening, the lenses, the edge, and around the hook.

Explain that cleaning the brush is needed to prevent debris on the brush from reattaching to the endoscope during the next brushing steps.

Explain to keep the brush immersed when cleaning the bristles.

Steps 5-6



Step 5-6: Brush up and down along the lens side surface of the distal end and the distal ring until no debris remains. Then clean the brush bristles.

Step 7-8: Confirm no debris remains. **If any debris remains, repeat brushing steps until no debris remains.**

CONTINUED ON NEXT PAGE

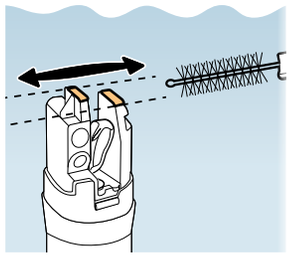
5.5.4.2 Brush the distal end's distal surface

Steps:

Step 1-3: Brush back and forth across the distal surface until no debris remains. Then clean the brush bristles.

Step 4-5: Confirm no debris remains. **If any debris remains, repeat brushing steps until no debris remains.**

Step 1-3



5.5.4.3 Brush the left side surface of the distal end and the distal ring

Steps:

Step 1-3: Brush back and forth across the left side surface of the distal end and the distal ring until no debris remains. Then clean the brush bristles.

Explain to brush not only the distal end but also the distal ring.

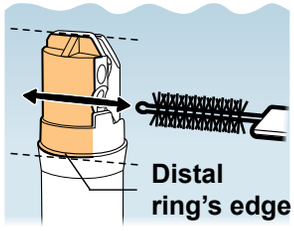
Explain how to distinguish between the left and right side of the distal end.

Step 4-5: Brush back and forth along the two grooves on the distal end's left surface, until no debris remains. Then clean the brush bristles.

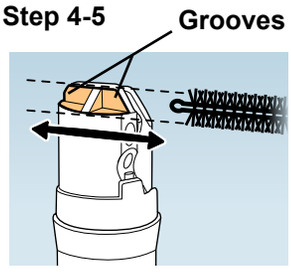
Step 6-7: Brush up and down, along the left side surface of the distal end and the distal ring until no debris remains. Then clean the brush bristles.

Step 8-9: Confirm no debris remains. **If any debris remains, repeat brushing steps until no debris remains.**

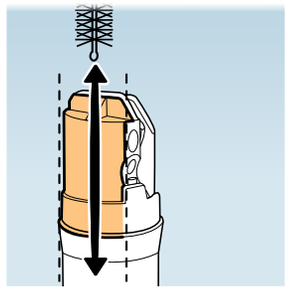
Step 1-3



Step 4-5



Step 6-7



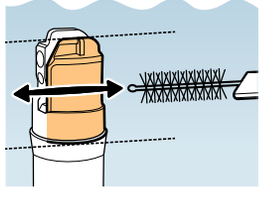
5.5.4.4 Brush the right side surface of the distal end and the distal ring

Steps:

Explain that the brushing steps of the right side surface are the same as those of the left side surface.

Step 1-3: Brush back and forth across the right side surface of the distal end and the distal ring until no debris remains. Then clean the brush bristles.

Steps 1-3



CONTINUED ON NEXT PAGE

5.5.4.4 Brush the right side surface of the distal end and the distal ring (continued)

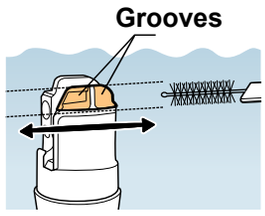
Step 4-5: Brush back and forth along the two grooves on the distal end's right surface, until no debris remains. Then clean the brush bristles.

Explain how to distinguish between the left and right side of the distal end.

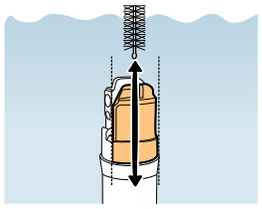
Step 6-7: Brush up and down, along the right side surface of the distal end and the distal ring until no debris remains. Then clean the brush bristles.

Step 8-9: Confirm no debris remains. **If any debris remains, repeat brushing steps until no debris remains.**

Steps 4-5



Steps 6-7



5.5.4.5 Brush the back side surface of the distal end and the distal ring

Steps:

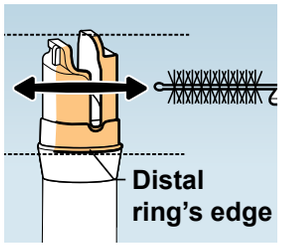
Step 1-3: Brush back and forth across the back side surface of the distal end and the distal ring until no debris remains. Then clean the brush bristles.

Explain to brush not only the distal end but also the distal ring.

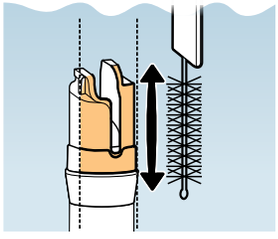
Step 4-5: Brush up and down, along the back side surface of the distal end and the distal ring until no debris remains. Then clean the brush bristles.

Step 6-7: Confirm no debris remains. **If any debris remains, repeat brushing steps until no debris remains.**

Steps 1-3



Steps 4-5



Section complete: ○ YES | ○ NO

5.5.4 Brush the endoscope's distal end and distal ring surfaces

Comments

CONTINUED ON NEXT PAGE

5.5.5 Brush the endoscope's channels

5.5.5.1 Brush the suction/instrument channel from the suction cylinder to the distal end

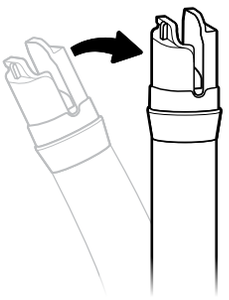
Steps:

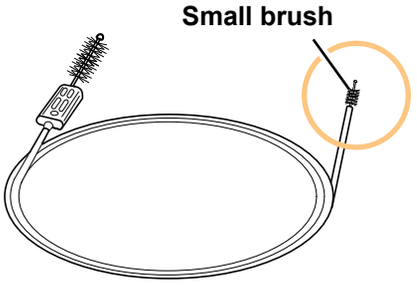
Step 1-2: Straighten the bending section and open the instrument channel outlet.

Step 3: Select the correct brush and brush end.

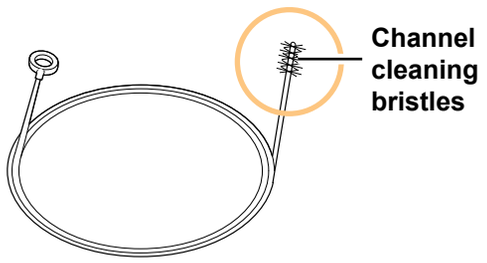
Show the correct brush to use. Explain the difference between the two ends of the BW-412T brush.

Step 1-2





Single use combination cleaning brush (BW-412T)



Channel cleaning brush (BW-20T)

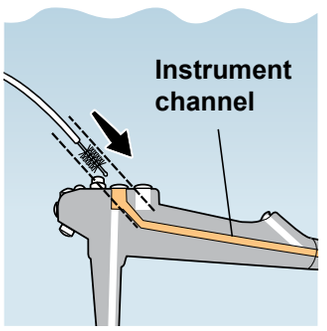
Step 4-9: Brush the suction/instrument channel from the suction cylinder to the distal end of the insertion section until no visible debris remains.

Explain to inspect whether the bristles have any debris when the brush emerges from the distal end, and then remove debris on the bristles. Also, inspect whether the bristles have any debris when pulling the brush from the suction cylinder, and then remove debris on the bristles.

Explain that brushing should be repeated if the bristles have any debris in the step above.

Step 10: Confirm no debris remains. **If any debris remains, repeat brushing steps until no debris remains.**

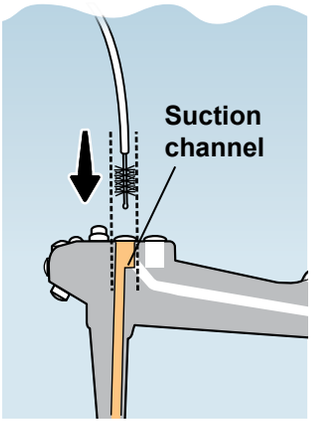
Step 4-9



CONTINUED ON NEXT PAGE

5.5.5.2 Brush the suction channel from the suction cylinder to the endoscope connector

Steps:



Step 1: Select the correct brush and brush end.

Steps 2-7: Brush the suction channel from the suction cylinder to the endoscope connector until no visible debris remains.

Explain that the brushing steps for brushing the suction channel are the same as those for the suction/ instrument channel.

Step 8: Confirm no debris remains. **If any debris remains, repeat brushing steps until no debris remains.**

5.5.5.3 Brush the suction cylinder

Step 1: Select the correct brush and brush end.

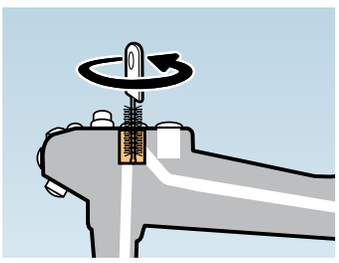
Steps 2-5: Brush the suction cylinder by rotating the channel-opening cleaning brush in the channel opening until no visible debris remains.

Explain to inspect whether the bristles have any debris when pulling the brush from the suction cylinder, and then remove debris on the bristles.

Explain that brushing should be repeated if the bristles have any debris in the step above.

Step 6: Confirm no debris remains. **If any debris remains, repeat brushing steps until no debris remains.**

Steps 2-5



CONTINUED ON NEXT PAGE

5.5.5.4 Brush the instrument channel port

Steps:

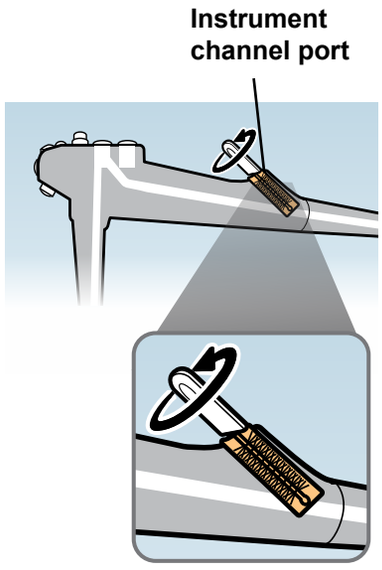
Step 1: Select the correct brush and brush end.

Steps 2-5: Brush the instrument channel port by rotating the channel-opening cleaning brush in the instrument channel port until no visible debris remains.

Explain to inspect whether the bristles have any debris when pulling the brush from the instrument channel port and then remove debris on the bristles.

Explain that brushing should be repeated if the bristles have any debris in the step above.

Step 6: Confirm no debris remains. **If any debris remains, repeat brushing steps until no debris remains.**



Section complete:

○ YES | ○ NO

5.5.5 Brush the endoscope's channels

Comments

CONTINUED ON NEXT PAGE

5.5.6 Flush the endoscope's distal end with detergent solution

Reminders!

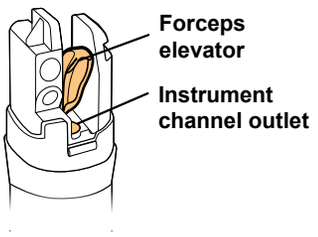
When flushing the endoscope's distal end, keep the endoscope, distal end flushing adapter and syringe immersed at all times when performing the flushing steps, unless the instructions state otherwise. Holding the endoscope and accessories out of the fluid while flushing may pose an infection control risk.

Steps:

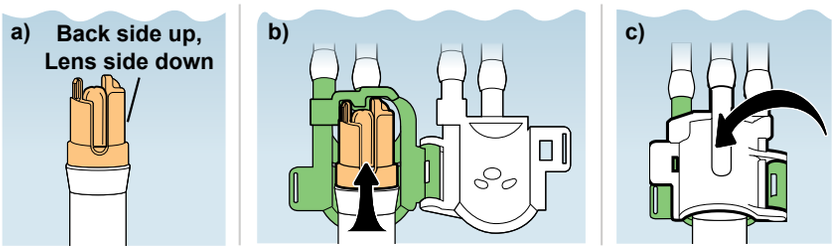
Step 1: Confirm that the distal end's instrument channel outlet is fully open.

Explain that if the instrument channel outlet is not opened, the targets are not able to be flushed with the detergent solution.

Step 1

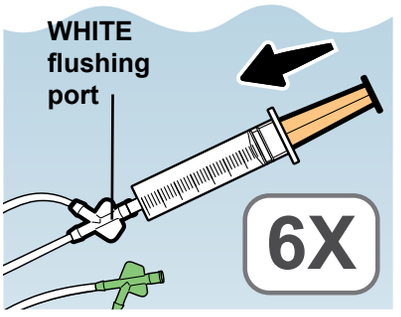


Steps 2-4: Keeping the endoscope and distal-end flushing adapter immersed in the detergent solution, attach the distal-end flushing adapter to the endoscope's distal end.



Step 5: Hold the distal-end flushing adapter and gently pull the endoscope to ensure that the distal end stays within the distal-end flushing adapter and does not come out.

Step 6-7



Step 6-7: Attach a 30 mL syringe to the distal-end flushing adapter's WHITE flushing port and flush the distal end with 180 mL of the detergent solution through the white flushing port (i.e., flush with the 30 mL syringe for a total of six times).

Explain to fill the syringe with detergent before attaching it to the port for the first flush to avoid pulling air into the syringe that might be inside the distal-end flushing adapter. Leave the syringe attached for subsequent flushes on the same port.

Explain the importance of keeping the syringe and distal end immersed while flushing to avoid pulling air into the distal-end flushing adapter.

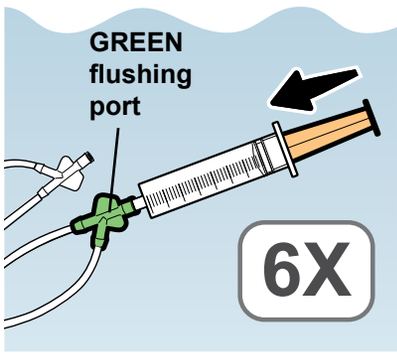
Explain to flush for a total of six times (30 mL × 6 times = 180 mL).

CONTINUED ON NEXT PAGE

5.5.6 Flush the endoscope's distal end with detergent solution (continued)

Step 8-10: Attach the syringe to the GREEN flushing port and flush the distal end with 180 mL of the detergent solution through the green flushing port (i.e., flush with the 30 mL syringe for a total of six times).

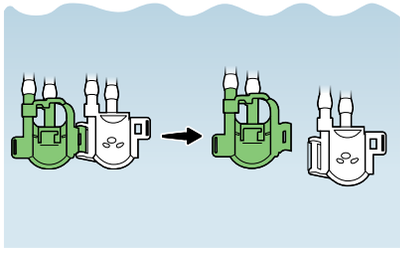
Step 8-10



Step 11-12: With the endoscope and the distal-end flushing adapter completely immersed in the detergent solution, detach the distal-end flushing adapter from the endoscope. Then separate the white cover and the green cover, and keep the distal-end flushing adapter in the detergent solution.

Explain that this step is needed to prevent debris from remaining on any external surfaces on the cover connection.

Step 11-12

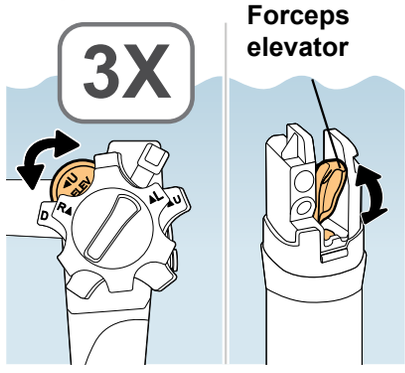


Step 13: Move the elevator control lever in each direction three times to move the forceps elevator up and down.

Explain the importance of keeping the distal end immersed while moving the elevator control lever to spread the detergent solution around the forceps elevator.

Remind to close and open the forceps elevator for a total of three times.

Step 13



Section complete: ○ YES | ○ NO

5.5.6 Flush the endoscope's distal end with detergent solution

Comments

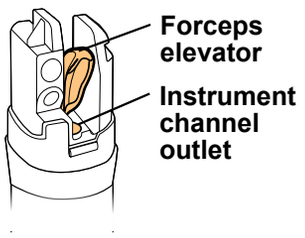
CONTINUED ON NEXT PAGE

5.5.7 Aspirate detergent solution through the instrument channel and the suction channel

Steps:

Step 1: Confirm that the distal end's instrument channel outlet is fully open.

Step 1



Step 2-3: Attach the suction cleaning adapter and suction tube to the endoscope.

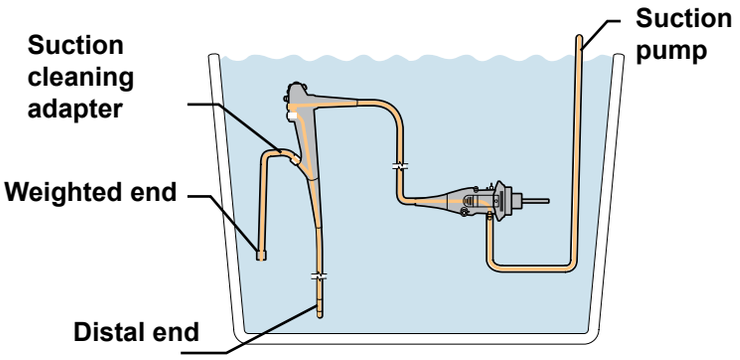
Step 4: Ensure the endoscope's distal end and the suction cleaning adapter's weighted end are completely immersed in the detergent solution.

Step 5-6: Turn the suction pump ON.

- If using KV-5 or KV-6 as suction pump, set the vacuum regulator to maximum

Demonstrate how the user might set the wrong vacuum setting (e.g., by not turning all the way to maximum).

Explain that not setting to maximum may result in ineffective cleaning.



CONTINUED ON NEXT PAGE

5.5.7 Aspirate detergent solution through the instrument channel and the suction channel (continued)

Step 7: Aspirate detergent solution for 30 seconds or more as follows:

a) Cover the endoscope's suction cylinder with your gloved fingertip.

b) While covering the suction cylinder, move the elevator control lever in each direction three times to move the forceps elevator up and down.

Explain to keep the distal end fully immersed while aspirating. Holding the endoscope out of the fluid while flushing may pose an infection control risk.

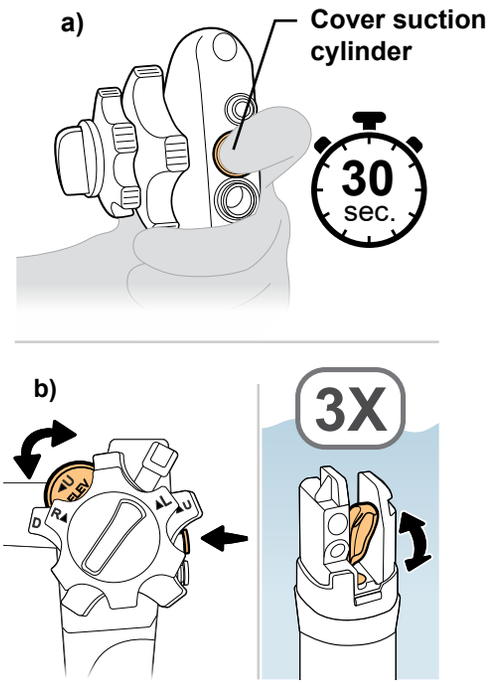
Emphasize to perform the two required actions (i.e., a) cover the suction cylinder and b) move the elevator control lever) at the same time.

Explain to close and open the forceps elevator for a total of three times.

Explain to use a clock or timer to accurately measure a suction time of 30 seconds or more.

Step 8-10. Turn the pump OFF. Then detach the suction tube and suction cleaning adapter.

Step 7



Section complete: ○ YES | ○ NO

5.5.7 Aspirate detergent solution through the instrument channel and the suction channel

Comments

CONTINUED ON NEXT PAGE

5.5.8 Flush the air/water channel with detergent solution

Reminders!

When flushing the air/water channel, keep the endoscope and accessories immersed at all times when performing the flushing steps, unless the instructions state otherwise. Holding the endoscope and accessories out of the fluid while flushing may pose an infection control risk.

Steps:

Step 1-3: Attach the channel plug (MH-944), biopsy valve cap of the channel plug, and the injection tube (MH-946).

Step 4: Completely immerse all accessories in the detergent solution.

Step 5-6: Attach a clean 30 mL syringe to the air/water channel port of the injection tube and flush 90 mL of detergent solution through the air/water channel (i.e., flush with the 30 mL syringe for a total of three times).

Explain that this flushing differs from flushing with the distal-end flushing adapter, because the syringe should remain attached to the port to fill it for all flushes, including the first flush.

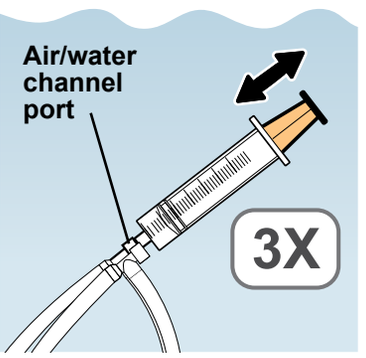
Explain that the syringe should be completely immersed to prevent air from entering from the attached part of the syringe and the air/water channel port.

Explain that the detergent solution is aspirated from the suction port of the injection tube by pulling the syringe and the detergent solution is flushed through the endoscope by pushing the syringe.

Explain to flush for a total of three times (30 mL × 3 times = 90 mL).

Explain that you will only be flushing the air/water channel at this time, and NOT the suction channel.

Steps 5-6



CONTINUED ON NEXT PAGE

5.5.8 Flush the air/water channel with detergent solution (continued)

Section complete: ○ YES | ○ NO

5.5.8 Flush the air/water channel with detergent solution

Comments

5.5.9 Immerse and then wipe the endoscope and accessories in detergent solution

Steps:

Step 1: With the endoscope and accessories completely immersed in the detergent solution, use a lint-free cloth to wipe down the endoscope, the channel plug, the injection tube, and the distal-end flushing adapter.

Emphasize to immerse the endoscope and accessories thoroughly while wiping to ensure no debris remains on any surfaces.

Step 2: Leave the endoscope with attached accessories immersed in the detergent solution, according to the instructions of the detergent manufacturer.

Explain to use a clock or timer to accurately measure the detergent contact time.

Step 3: Remove the endoscope's distal end from the fluid and confirm no debris remains.

If any debris remains, return to the beginning of Chapter 5.5, "Manually clean the endoscope and accessories" and repeat the entire cleaning procedure until no debris remains.

Step 4: Remove the endoscope and accessories from the detergent solution.

CONTINUED ON NEXT PAGE

5.5.9 Immerse and then wipe the endoscope and accessories in detergent solution (continued)

Section complete: ○ **YES** | ○ **NO**

5.5.9 Immerse and then wipe the endoscope and accessories in detergent solution

Comments

5.5.10 Remove detergent solution from the distal end and all channels

5.5.10.1 Remove detergent solution from the distal end

Steps:

Step 1: Fill a clean, large basin with water.

Steps 2-3: Immerse endoscope and accessories in clean water, and gently move the entire endoscope with accessories attached and the distal-end flushing adapter back and forth in the water to thoroughly rinse.

Step 4: Confirm that the distal end's instrument channel outlet is fully open.

Step 5-7: Attach the distal-end flushing adapter to the endoscope's distal end and confirm it is attached securely.

Step 8: Completely immerse the distal-end flushing adapter in the water.

CONTINUED ON NEXT PAGE

Step 9-13: Inject 90 mL of the water through each side of the distal-end flushing adapter (i.e., WHITE port and GREEN port) with a clean 30 mL syringe (i.e. flush with the 30 mL syringe for a total of three times through each port).

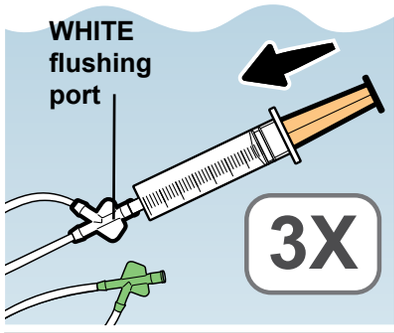
*Remind to fill the syringe with water **before** connecting it for the first flush on each side of the distal-end flushing adapter.*

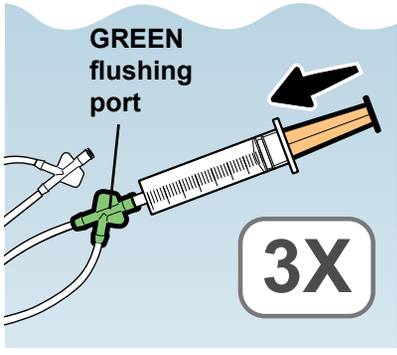
Step 14-15: Detach the distal-end flushing adapter from the distal end and separate the covers.

Debris can remain trapped between the white and green cover if they are not separated from each other.

Step 16: Completely immerse the distal-end flushing adapter in the water.

Step 9-13





5.5.10.2 Remove detergent solution from all channels

Steps:

Step 1: Confirm that the injection tube's suction port is completely immersed in the water.

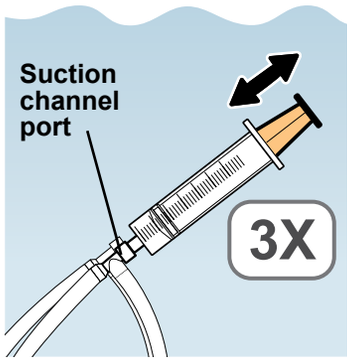
Step 2-5: Flush both injection tube's ports (i.e., the suction channel port and air/water channel port) with 90 mL of the water (i.e. flush with the 30 mL syringe for a total of three times through each port).

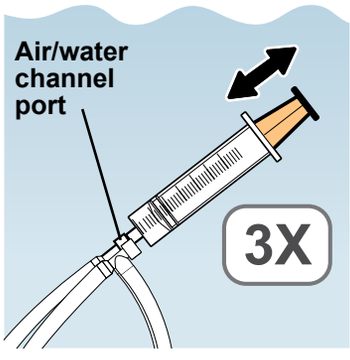
Explain that this flushing differs from flushing with the distal-end flushing adapter, because the syringe should remain attached to the port to fill it for all flushes, including the first flush.

Emphasize to immerse the syringe thoroughly while flushing and explain that this is important to prevent air from entering from the attached part of the syringe and the suction channel port.

Explain to flush for a total of three times (30 mL × 3 times = 90 mL).

Steps 2-5





CONTINUED ON NEXT PAGE

5.5.10.2 Remove detergent solution from all channels (continued)

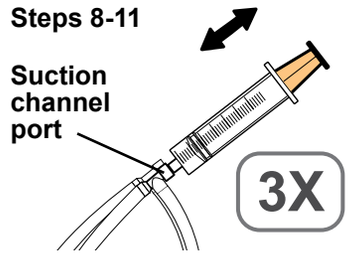
Step 6: Remove the endoscope with accessories attached and the distal-end flushing adapter from the water and place them in a clean basin.

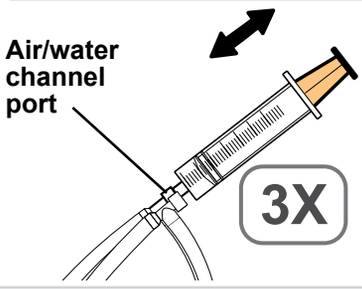
Step 7: Cover the distal end and control section with a clean lint-free cloth to prevent splashing.

Step 8-11: Using a 30 mL syringe, flush each side of the injection tube with 90 mL of air.

Step 12: Remove the cloth.

Step 13-14: Detach the channel plug and the injection tube from the endoscope.





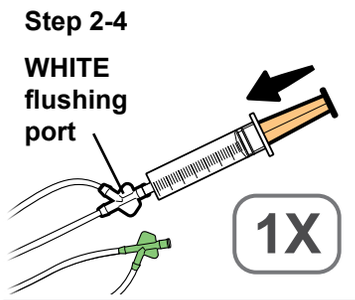
5.5.10.3 Remove detergent solution from the distal-end flushing adapter

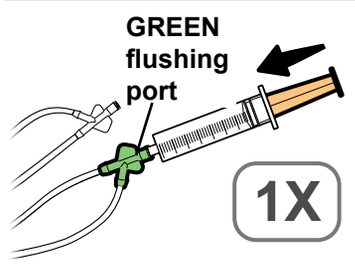
Steps:

Step 1: Cover the white and the green covers with a clean lint-free cloth to prevent splashing.

Steps 2-4: Fill the syringe with air, then attach to the WHITE flushing port of the distal-end flushing adapter to flush with 30 mL of air. Repeat for the GREEN flushing port.

Step 5: Remove the cloth.





Section complete: ○ YES | ○ NO

5.5.10 Remove detergent solution from the distal end and all channels

Comments

CONTINUED ON NEXT PAGE

5.5.11 Dry the external surfaces

Steps:

Step 1: Use a clean lint-free cloth to dry all external surfaces of the endoscope, channel plug, distal-end flushing adapter and injection tube.

Steps 2-3: Inspect all items for residual debris. If any debris remains, repeat the entire cleaning process until it is removed.

Explain that if using an AER, make sure that the AER in the facility is compatible with TJF-Q190V.

Section complete:

○ YES | ○ NO

5.5.11 Dry the external surfaces

Comments

CONTINUED ON NEXT PAGE

5.6 Manually disinfect the endoscope and accessories

Reminders!

- Explain the importance of following the instructions of the reprocessing manual. Not following the instructions may cause infection, device damage, or lowered device function.
- Once you have immersed the endoscope and accessories in disinfectant solution for the disinfectant manufacturer's recommended time, only use sterile equipment, such as sterile syringes, cloths, and sterile gloves, for all reprocessing steps. Otherwise, it may pose an infection control risk.

5.6.2 Prepare for manual disinfection

Steps:

Step 1: Fill a clean, large basin with the disinfectant solution prepared as recommended by the manufacturer.

Explain that the trainee should confirm the disinfectant manufacturer's instructions.

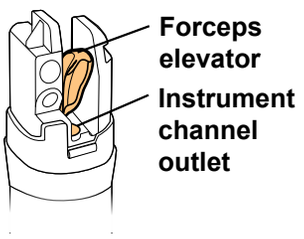
Step 2: Ensure that the distal end's instrument channel outlet is fully open.

Step 3: Completely immerse the endoscope in the disinfectant solution.

Step 4-6: Attach the channel plug (MH-944), biopsy valve cap of the channel plug, and injection tube (MH-946).

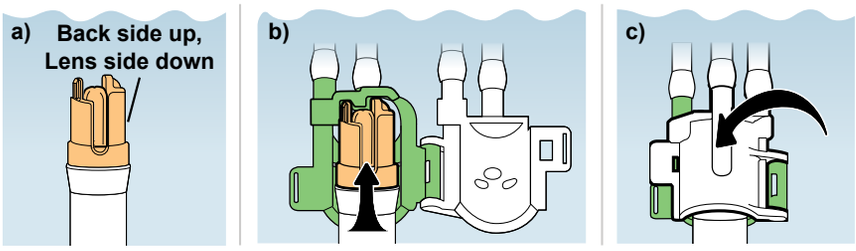
Step 7: Completely immerse the channel plug and the injection tube in the disinfectant solution.

Step 2



CONTINUED ON NEXT PAGE

Steps 8-10: Keeping the endoscope and distal-end flushing adapter immersed in the disinfectant solution, attach the distal-end flushing adapter to the endoscope's distal end and ensure it is secure.



Step 11: Hold the distal-end flushing adapter and gently pull the endoscope to ensure that the distal end stays within the distal-end flushing adapter and does not come out.

Section complete:

○ YES | ○ NO

5.6.2 Prepare for manual disinfection

Comments

CONTINUED ON NEXT PAGE

5.6.3 Flush the distal end and all channels with disinfectant solution

Reminders!

- Once you immerse the endoscope and/or accessories, keep it immersed at all times when preforming the disinfecting steps, unless the instructions state otherwise. Holding the endoscope out of the fluid while disinfecting may pose an infection control risk.
- Make sure that the disinfectant solution contacts all internal channel surfaces of the endoscope and accessories by completely removing all air bubbles from all channels. Air bubbles may inhibit disinfection of the channel's surfaces. When filling the channels with the disinfectant solution, flush until no more air bubbles are seen exiting the channel openings.
- Forcefully flushing the disinfectant solution through the channels will improve your ability to remove air bubbles.

Steps:

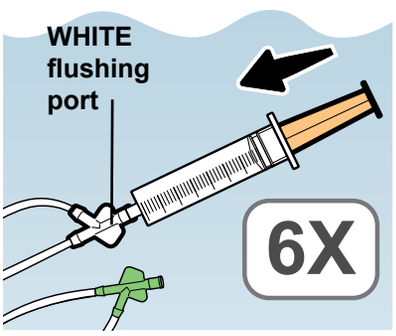
Step 1-2: Attach a 30 mL syringe to the distal-end flushing adapter's WHITE flushing port and flush the distal end with 180 mL of the disinfectant solution through the white flushing port (i.e., flush with the 30 mL syringe for a total of six times).

Explain to fill the syringe with disinfectant before attaching it to the port for the first flush to avoid pulling air into the syringe that might be inside the distal-end flushing adapter. Leave the syringe attached to fill it for subsequent flushes on the same port.

Explain the importance of keeping the syringe and distal end immersed while flushing to avoid pulling air into the distal-end flushing adapter.

Explain to flush for a total of six times (30 mL × 6 times = 180 mL).

Steps 1-2



CONTINUED ON NEXT PAGE

5.6.3 Flush the distal end and all channels with disinfectant solution (continued)

Step 3-5: Attach the syringe to the GREEN flushing port and flush the distal end with 180 mL of the disinfectant solution through the GREEN flushing port (i.e., flush with the 30 mL syringe for a total of six times).

Step 6-7: With the endoscope and the distal-end flushing adapter completely immersed in the disinfectant solution, detach the distal-end flushing adapter from the endoscope. Then separate the white cover and the green cover, and keep the distal-end flushing adapter in the disinfectant solution.

Explain that this step is needed to prevent air bubbles from remaining on any external surfaces on the cover connection.

Step 8: Move the elevator control lever in each direction three times to move the forceps elevator up and down.

Emphasize to immerse the distal end thoroughly while moving the elevator control lever. If user removes the distal end from the disinfectant solution, air bubbles adhere to the distal end.

Remind to close and open the forceps elevator for a total of three times.

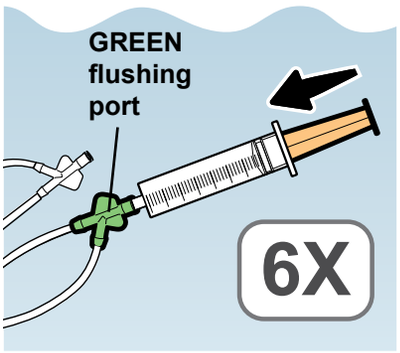
Step 9: Confirm that the suction port of the injection tube (MH-946) is completely immersed in the disinfectant solution.

Step 10-11: Attach the 30 mL syringe to the injection tube's suction channel port and flush 180 mL of disinfectant solution through the suction channel (i.e., flush with the 30 mL syringe for a total of six times), until no air bubbles emerge from distal end.

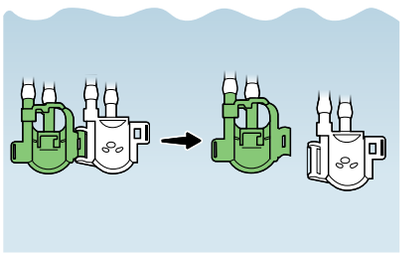
Explain that the syringe should be completely immersed to prevent air from entering from the attached part of the syringe and the channel port.

Explain to perform flushing until no air bubbles exit because removing all air inside the channel allows the disinfectant solution to contact all the internal surfaces of the channel.

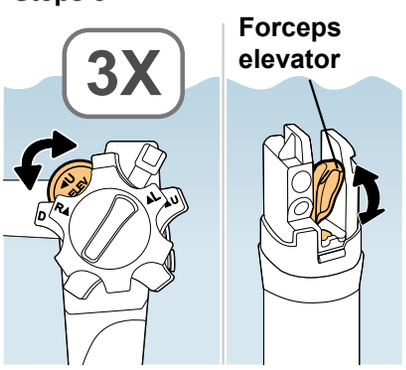
Step 3-5



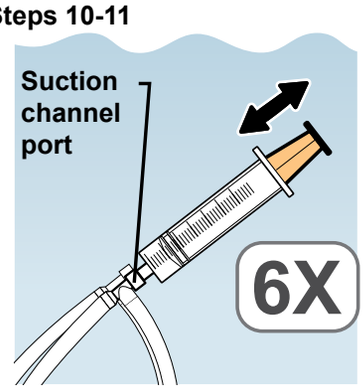
Steps 6-7



Steps 8



Steps 10-11

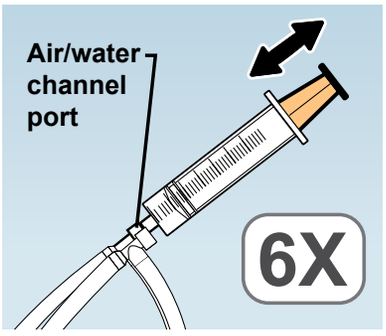


CONTINUED ON NEXT PAGE

5.6.3 Flush the distal end and all channels with disinfectant solution (continued)

Step 12-13: Attach the 30 mL syringe to the injection tube's air/water channel port and flush 180 mL of disinfectant solution through the air/water channel (i.e., flush with the 30 mL syringe for a total of six times), until no air bubbles emerge from distal end.

Steps 12-13

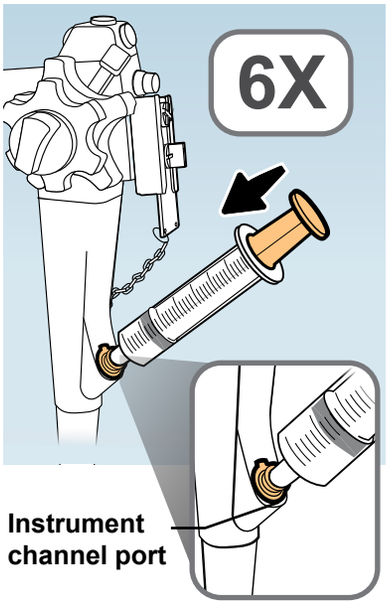


Step 14: Keeping the endoscope immersed in the disinfectant solution, remove the biopsy valve cap of the channel plug (MH-944) from the endoscope's instrument channel port.

Keep the channel plug's plug frame attached to the control section.

Step 15: Firmly hold the 30 mL syringe to the instrument channel port and flush 180 mL of disinfectant solution through the instrument channel (i.e., flush with the 30 mL syringe for a total of six times), until no air bubbles emerge from distal end.

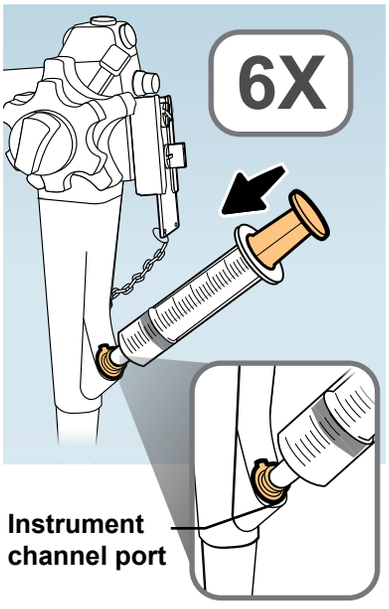
Step 15



Step 16: Keeping the endoscope immersed, move the elevator control lever in each direction three times to move the forceps elevator up and down.

Step 17: For a second time, firmly hold the 30 mL syringe to the instrument channel port and flush 180 mL of disinfectant solution through the instrument channel (i.e., flush with the 30 mL syringe for a total of six times), until no air bubbles emerge from distal end.

Step 17



Explain that the control section should be immersed to prevent air from entering from the instrument channel port.

Explain that flushing must be performed until there is no air inside the channel (i.e., no air bubbles) to allow the disinfectant solution to contact all the internal surfaces of the channel.

CONTINUED ON NEXT PAGE

Section complete: ○ **YES** | ○ **NO**

5.6.3 Flush the distal end and all channels with disinfectant solution

Comments

CONTINUED ON NEXT PAGE

5.6.4 Immerse the endoscope and accessories in disinfectant solution

Reminders!

To ensure proper disinfection:

- Keep the channel plug, the injection tube, and the distal-end flushing adapter detached from the endoscope. If these accessories remain attached to the endoscope during disinfection, the disinfectant solution cannot adequately contact the mated surfaces between the endoscope and the accessory.
- Keep the endoscope and accessories completely immersed below the surface of the disinfectant solution (i.e., all external surfaces of the endoscope and accessories contact the disinfectant solution). If the endoscope and accessories are not completely immersed, any protruding section(s) of the device(s) will not be adequately disinfected.
- Do not immerse the endoscope and accessories in the disinfectant solution for a longer contact time, at a higher temperature, or at a greater concentration than recommended by the disinfectant manufacturer. Such immersion may cause damage to the endoscope and accessories.

Steps:

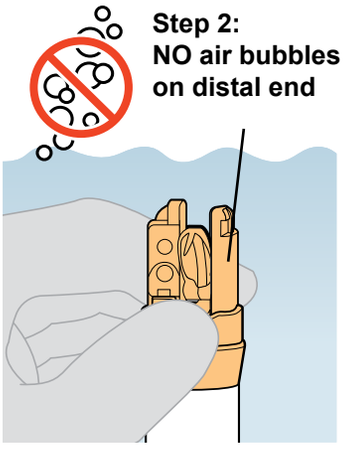
Step 1: Keeping the endoscope and all accessories immersed in the disinfectant solution, detach the channel plug (MH-944) and the injection tube (MH-946) from the endoscope.

Explain that the endoscope and all accessories should not be removed from the disinfectant solution to prevent air from adhering.

Step 2: Keeping the endoscope immersed in the disinfectant solution, wipe the endoscope's distal end using your gloved fingertips to remove air bubbles.

Step 3: Keeping the endoscope and all accessories immersed in the disinfectant solution, wipe all external surfaces using a clean lint-free cloth to remove any air bubbles.

Step 4: Confirm that there are no air bubbles on the surfaces of the endoscope and all accessories.



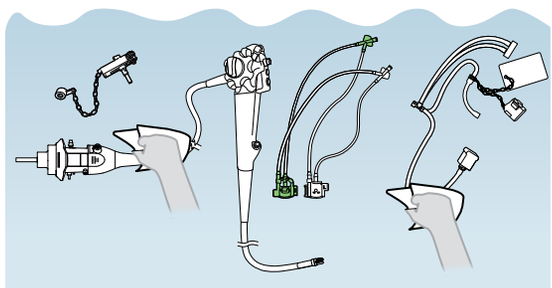
CONTINUED ON NEXT PAGE

If air bubbles adhere to the surfaces, keep the endoscope immersed, and wipe them off using your gloved fingertips or a clean lint-free cloth. Or, use a syringe filled with disinfectant solution to flush the air bubbles off.

Explain that air bubbles must be removed to allow all external surfaces of the endoscope to completely contact the disinfectant solution.

Explain that the endoscope should not be removed from the disinfectant solution to prevent air from adhering.

NO air bubbles on surfaces



Step 5-6: Cover the disinfection basin with a tight-fitting lid and leave everything to soak for the disinfectant manufacturer's recommended contact time.

Section complete:

○ **YES** | ○ **NO**

5.6.4 Immerse the endoscope and accessories in disinfectant solution

Comments

CONTINUED ON NEXT PAGE

5.6.5 Remove disinfectant solution from all channels

Reminders!

Explain that new sterile equipment (cloth, syringe, etc.) must be used after disinfection to prevent the endoscope and the accessories from being contaminated again with potentially infectious microorganisms.

Steps:

Steps 1-3: Attach the channel plug (MH-944), biopsy valve cap, and injection tube (MH-946).

Step 4: Remove the injection tube's suction port and channel ports from the disinfectant solution.

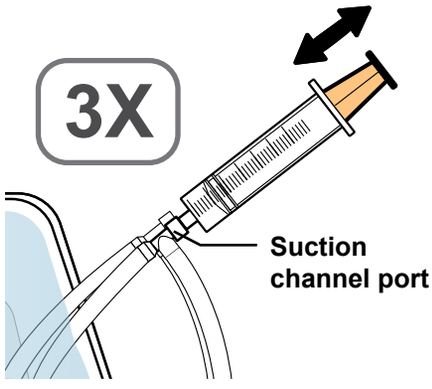
Step 5-8: Flush 90 mL of air through the injection tube's suction channel port and 90 mL of air through the air/water channel port (i.e., flush each with the 30 mL syringe for a total of three times).

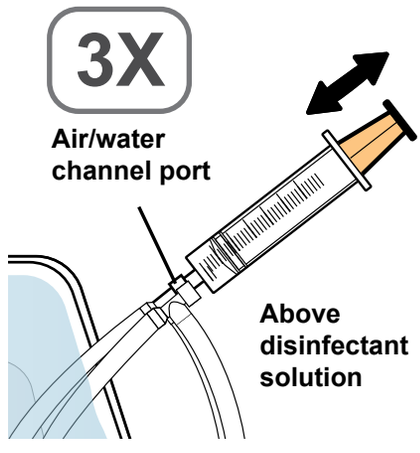
Step 9: Remove the endoscope and all attached accessories from the disinfectant solution. Leave the distal-end flushing adapter in the disinfectant solution.

Step 10-12: Flush 30 mL of air through the distal end flushing adapter's WHITE port and 30 mL of air through the GREEN port.

Step 13: Remove the distal-end flushing adapter from the disinfectant solution.

Step 5-8





Section complete:

○ YES | ○ NO

5.6.5 Remove the endoscope and accessories from disinfectant solution

Comments

CONTINUED ON NEXT PAGE

5.7 Rinse the endoscope and accessories following disinfection

5.7.2 Rinse the endoscope and accessories

Reminders!

- Once you immerse the endoscope and/or accessories, keep it immersed at all times when preforming the rinsing steps, unless the instructions state otherwise. Holding the endoscope out of the fluid while rinsing may cause adverse reactions in patients because of residual reprocessing fluids.
- Explain the importance of following the instructions of the reprocessing manual. Not following the instructions may cause infection, device damage, or lowered device function.
- Explain that new sterile equipment (cloth, syringe, etc.) must be used after disinfection to prevent the endoscope and the accessories from being contaminated again with potentially infectious microorganisms.

Steps:

Step 1-2: Fill a sterile, large basin with rinse water and completely immerse the endoscope with accessories attached.

Step 3-4: Detach the channel plug (MH-944) and the injection tube (MH-946) from the endoscope.

Step 5: Keeping the endoscope and all accessories completely immersed in the rinse water, wipe all external surfaces of the endoscope and all accessories using sterile lint-free cloths.

Steps 6-8: Attach the channel plug (MH-944), biopsy valve cap, and injection tube (MH-946).

Step 9: Make sure the endoscope and attached accessories are completely immersed in the rinse water and confirm that the suction port of the injection tube is completely immersed.

CONTINUED ON NEXT PAGE

5.7.2 Rinse the endoscope and accessories (continued)

Step 10-13: Flush 90 mL of rinse water through each the suction channel and air/water channel ports (i.e., flush with the 30 mL syringe a total of three times each), until no air bubbles emerge from distal end.

Explain that the syringe should be completely immersed to prevent air from entering from the attached part of the syringe and the channel port.

Explain to perform flushing until no air bubbles exit because removing all air inside the channel allows the rinse water to contact all the internal surfaces of the channel.

Step 14: Move the elevator control lever in each direction three times to move the forceps elevator up and down.

Step 15: Repeat Steps 1 through 14 for the number of times required by the disinfectant manufacturer's instructions.

Step 16: Remove the endoscope from the rinse water with accessories attached and place them in a sterile basin.

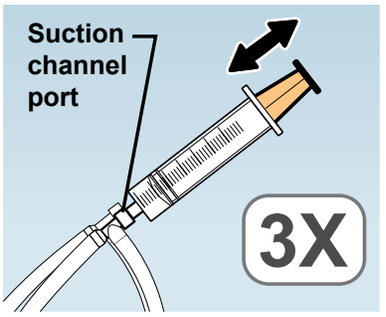
Step 17: To prevent splashing from the channel openings, cover the endoscope's distal end and control section with sterile lint-free cloths.

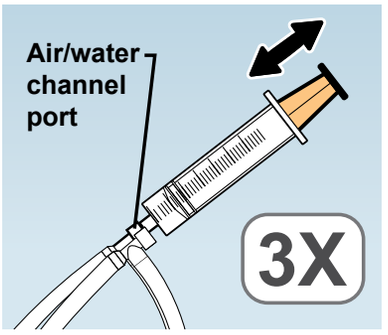
Steps 18-21: Flush 90 mL of air through the injection tube's suction channel port and 90 mL of air through the air/water channel port (i.e., flush each with the 30 mL syringe for a total of three times).

Step 22: Remove the cloths from the endoscope.

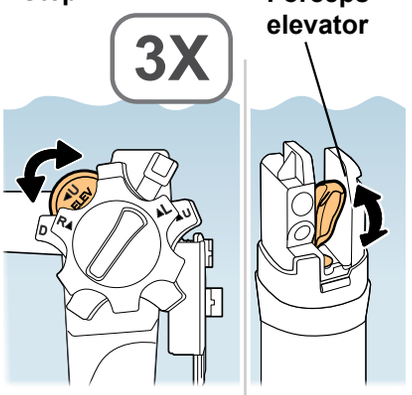
Step 23-24: Detach only the injection tube from the endoscope, and attach the suction pump's sterile suction tube to the suction connector on the endoscope connector.

Steps 10-13





Step 14



CONTINUED ON NEXT PAGE

Step 25-26: If using the KV-6 or KV-5 suction pump, turn the vacuum regulator knob clockwise until the knob stops and sets to maximum, then turn the suction pump ON.

Explain that not setting the suction pump to maximum may result in ineffective cleaning.

Step 27: While aspirating air for 15 seconds or more, move the elevator control lever in each direction three times, to move the forceps elevator up and down.

Explain to use a clock or timer to accurately measure 15 seconds or more.

Step 28: Turn the suction pump OFF.

Step 29-30: Detach the channel plug and the suction pump's sterile suction tube from the endoscope.

Step 31: Using sterile lint-free cloths, wipe all external surfaces until thoroughly dry.

Step 32: Using sterile cotton swabs, wipe the inside of the endoscope's suction cylinder, the air/water cylinder, and the instrument channel port until thoroughly dry.

Step 33: Using sterile cotton swabs, wipe the forceps elevator and its recess until thoroughly dry.

Section complete: ○ **YES** | ○ **NO**

5.7.2 Rinse the endoscope and accessories

Comments

CONTINUED ON NEXT PAGE

5.7.3 Flush with alcohol

Reminders!

Remove residual alcohol from endoscope channels to reduce the risk of residual alcohol contacting patient's mucosa during electrosurgical procedures.

Steps:

Step 1: Fill a sterile, small basin with alcohol.

Steps 2-4: Attach the channel plug (MH-944), biopsy valve cap, and injection tube (MH-946).

Step 5: Completely immerse the injection tube's suction port in the alcohol.

Step 6: To prevent splashing from the channel openings, cover the endoscope's distal end and control section with sterile lint-free cloths.

Step 7-8: Flush 90 mL of alcohol through the suction channel port (i.e., flush with the 30 mL syringe a total of three times).

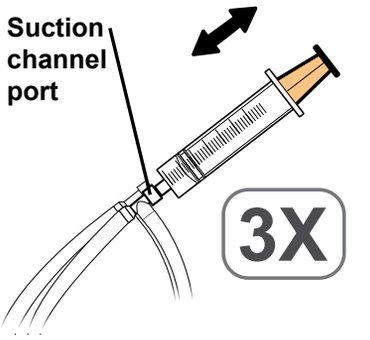
Step 9-10: Flush 30 mL of alcohol through the air/water channel port (i.e., flush with the 30 mL syringe once).

Step 11: Move the elevator control lever in each direction three times to move the forceps elevator up and down.

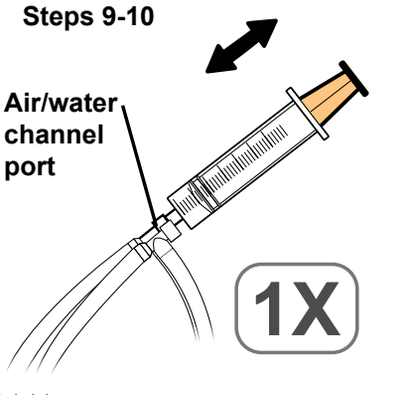
Step 12: Remove the injection tube's suction port from the alcohol.

Step 13-16: Flush 90 mL of air through the injection tube's suction channel port and 90 mL of air through the air/water channel port (i.e., flush each with the 30 mL syringe for a total of three times).

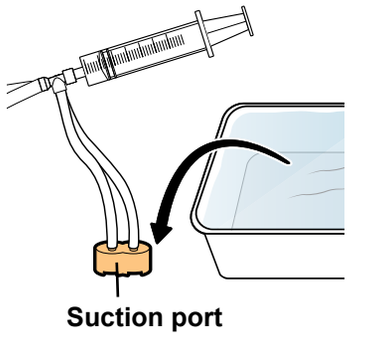
Steps 7-8



Steps 9-10



Step 12



CONTINUED ON NEXT PAGE

5.7.3 Flush with alcohol (continued)

Step 17: Remove the cloths from the endoscope.

Step 18-19: Detach only the injection tube from the endoscope, and attach the suction pump's sterile suction tube to the suction connector on the endoscope connector.

Step 20-21: If using the KV-6 or KV-5 suction pump, turn the vacuum regulator knob clockwise until the knob stops and sets to maximum, then turn the suction pump ON.

Explain that not setting the suction pump to maximum may result in ineffective cleaning.

Step 22: Aspirate air for 30 seconds or more.

Explain to use a clock or timer to accurately measure 30 seconds or more.

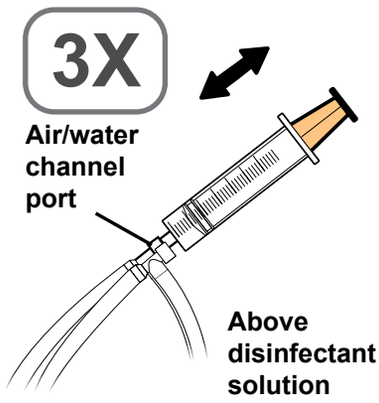
Step 23: Turn the suction pump OFF.

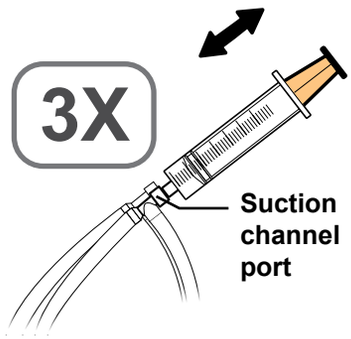
Step 24-25: Detach the channel plug and the suction pump's sterile suction tube from the endoscope.

Step 26: Using sterile lint-free cloths, wipe all external surfaces until thoroughly dry.

Step 27: Using sterile cotton swabs, wipe the inside of the endoscope's suction cylinder, the air/water cylinder, and the instrument channel port until thoroughly dry.

Step 13-16





Section complete:

○ YES | ○ NO

5.7.3 Flush with alcohol

Comments

CONTINUED ON NEXT PAGE

5.7.4 Dry the endoscope

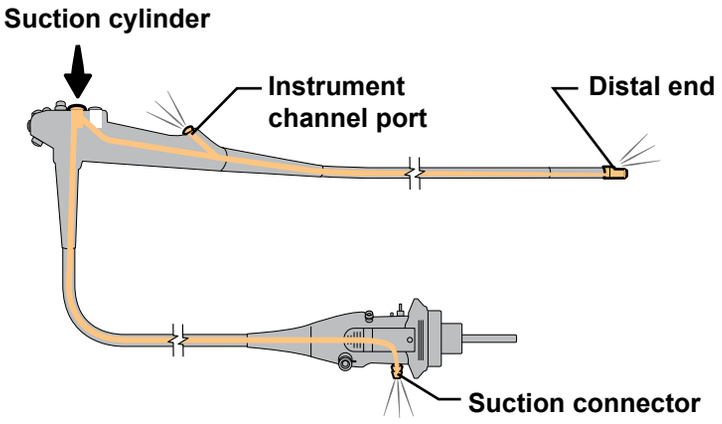
Reminders!

When aerating the endoscope channels, the air pressure must not exceed 0.5 MPa (5 kgf/cm^2, 71 psig). Higher pressures may cause damage to the endoscope.

Steps:

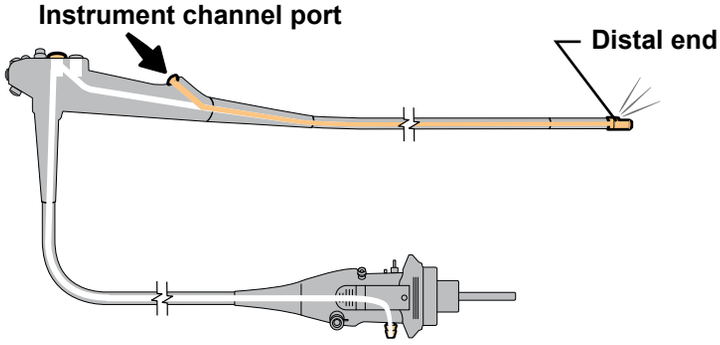
Step 1-2: Ensure that the distal end's instrument channel outlet is fully open, and cover the endoscope's distal end, control section, and endoscope connector in sterile lint-free cloths.

Step 3: Blow compressed filtered air of less than 0.5 MPa from the endoscope's suction cylinder through the suction channel and the instrument channel until no alcohol exits from the endoscope's distal end, the instrument channel port, and the suction connector.



Explain that the user should confirm that no alcohol comes out of the channel outlet after lifting the cloth covering the endoscope.

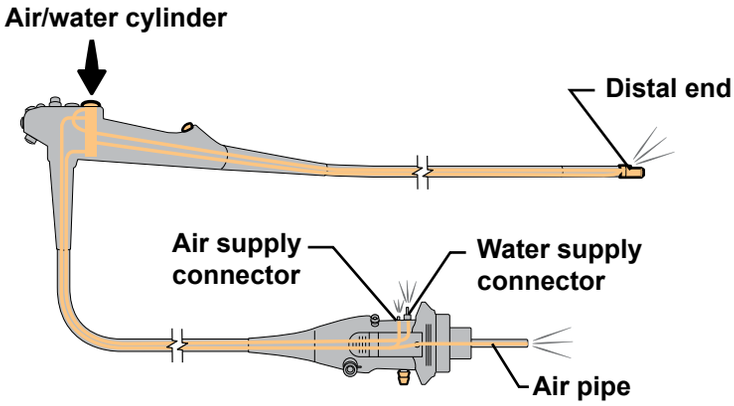
Step 4: Blow compressed filtered air of less than 0.5 MPa from the endoscope's instrument channel port through the instrument channel until no alcohol exits from the endoscope's distal end.



CONTINUED ON NEXT PAGE

5.7.4 Dry the endoscope (continued)

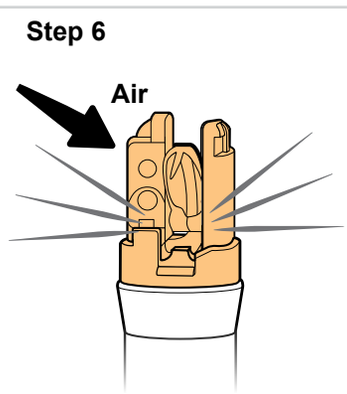
Step 5: Blow compressed filtered air of less than 0.5 MPa from the endoscope's air/water cylinder through the air/water channel until no alcohol exits from the endoscope's distal end, the air supply connector, the water supply connector, and the air pipe.



Step 6: Blow compressed filtered air of less than 0.5 MPa on the endoscope's distal end until no alcohol remains.

Step 7: Using sterile cotton swabs, wipe the inside of the endoscope's suction cylinder, the air/water cylinder, and the instrument channel port until thoroughly dry.

Step 8: Using sterile lint-free cloths, wipe all the endoscope's external surfaces until thoroughly dry.



Section complete:

○ YES | ○ NO

5.7.4 Dry the endoscope

Comments

CONTINUED ON NEXT PAGE

5.8 Sterilize the endoscope and accessories

Reminders!

Explain the importance of following the instructions of the reprocessing manual. Not following the instructions may cause infection, device damage, or lowered device function.

5.8.2 Ethylene oxide gas sterilization of the endoscope and accessories

Reminders!

- Thoroughly dry the endoscope and accessories before sterilization.
- All instruments must be properly aerated following ethylene oxide gas sterilization to remove toxic ethylene oxide residuals.

Steps:

Step 1: Ensure the endoscope's channels, channel plug (MH-944), and injection tube (MH-946) have all been flushed and dried thoroughly.

Step 2: Attach the ETO cap (MB-156) to the endoscope's venting connector.

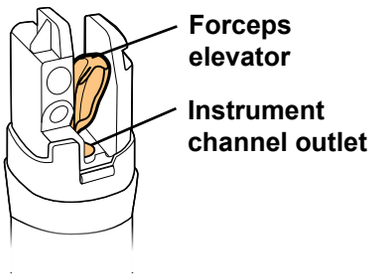
Step 3: Ensure that the distal end's instrument channel outlet is fully open.

Step 4-5: Put the endoscope in a stainless steel wire mesh basket and wrap with sterilization wrap for ETO gas sterilization.

Step 6: Seal the accessories in individual sterilization pouches for ETO gas sterilization.

Step 7: Sterilize and aerate the packaged endoscope and accessories following the parameters described in Chapter 3.7, "Ethylene oxide gas sterilization".

Step 3



CONTINUED ON NEXT PAGE

Section complete: ○ **YES** | ○ **NO**

5.8.2 Ethylene oxide gas sterilization of the endoscope and accessories

Comments

CONTINUED ON NEXT PAGE

5.9 Presoak the endoscope

Reminders!

- Follow the procedure described in this chapter if manual cleaning could not be started within 1 hour after the patient procedure or if you are not sure whether manual cleaning was started within 1 hour. Presoaking the endoscope in detergent solution before manually cleaning the endoscope may be required to wet and loosen debris that has dried and hardened onto the endoscope's surfaces.
- If manual cleaning could not be performed within 24 hours after the patient procedure or if you are not sure whether manual cleaning could be performed within 24 hours, dried debris may not be removed and endoscope reprocessing may not be performed effectively. Consult with your hospital's infection control committee what to do if the endoscope could not be reprocessed within 24 hours after the procedure.
- Do not reuse the detergent solution used for presoak. If performing manual cleaning with the detergent solution used for presoak, endoscope reprocessing may not be performed effectively.
- Avoid unnecessary long-term immersions. Consecutive reprocessing sessions using extended immersion may damage the endoscope.

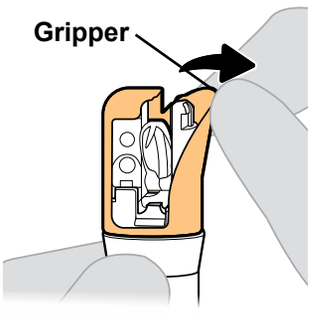
5.9.2 Presoak the endoscope

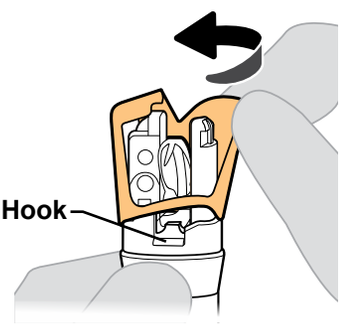
Reminders!

Once you immerse the endoscope and/or accessories, keep it immersed at all times when preforming the cleaning steps, unless the instructions state otherwise. Holding the endoscope out of the fluid while cleaning may pose an infection control risk.

Steps:

Step 1: If the single use distal cover (MAJ-2315) has not been detached, detach the single use cover.





CONTINUED ON NEXT PAGE

5.9.2 Presoak the endoscope (continued)

Step 2: If you have not performed a leakage test, first perform a leakage test according to Chapter 5.4, “Leakage testing of the endoscope.”

Step 3-4: Fill a clean, large basin with detergent solution and completely immerse the endoscope in the detergent solution.

Explain that the trainee should confirm the detergent manufacturer’s instructions.

Step 5: Ensure that the distal end’s instrument channel outlet is fully open.

Steps 6-8: Attach the channel plug (MH-944), biopsy valve cap, and injection tube (MH-946).

Steps 9: Completely immerse the channel plug and the injection tube in the detergent solution.

Steps 10-12: Keeping the endoscope and distal-end flushing adapter immersed in the detergent solution, attach the distal-end flushing adapter to the endoscope’s distal end.

Steps 13: Hold the distal-end flushing adapter and gently pull the endoscope to ensure that the distal end stays within the distal-end flushing adapter and does not come out.

Step 14-18: Flush 180 mL total through each the WHITE flushing port and the GREEN flushing port (i.e., flush a total of six times through each port using a 30 mL syringe).

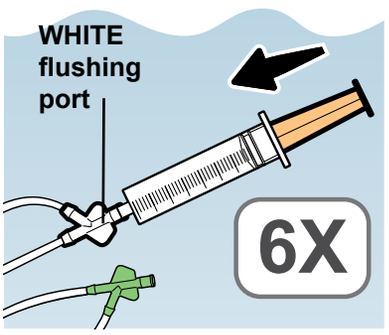
Explain to fill the syringe with detergent before attaching it to the white flushing port to avoid pulling air into the syringe that might be inside the distal-end flushing adapter. Leave the syringe attached to fill it for subsequent flushes.

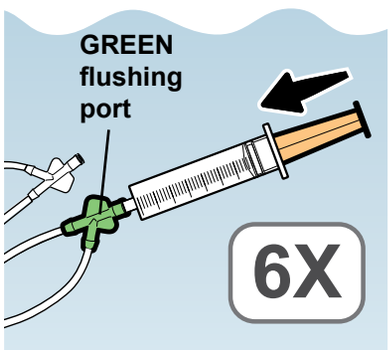
Explain the importance of keeping the syringe and distal end immersed while flushing to avoid pulling air into the distal-end flushing adapter.

Explain to flush for a total of six times (30 mL × 6 times = 180 mL) on each port.

Step 19-20: Keeping the distal-end flushing adapter immersed, detach it from the endoscope and then remove only the distal-end flushing adapter from the detergent solution.

Steps 14-18





CONTINUED ON NEXT PAGE

5.9.2 Presoak the endoscope (continued)

Step 21: Move the elevator control lever in each direction three times to move the forceps elevator up and down.

Step 22-23: Attach the 30 mL syringe to the injection tube's suction channel port and flush 180 mL of the detergent solution through the suction channel (i.e., flush with the 30 mL syringe for a total of six times), and confirm air bubbles exit distal end.

Explain that no air bubbles will exit from the distal end of the endoscope if the suction channel is clogged.

Step 24-25: Attach the 30 mL syringe to the injection tube's air/water channel port and flush 90 mL of the detergent solution through the air/water channel (i.e., flush with the 30 mL syringe for a total of three times), and confirm air bubbles exit distal end.

Explain that no air bubbles will exit from the distal end of the endoscope if the air/water channel is clogged.

Step 26: If air bubbles did not exit the endoscope's distal end while performing Steps 22 through 25, the suction channel, and/or the air/water channel might be clogged. If so, conduct the following steps:

a) Immerse the endoscope in the detergent solution for 30 minutes.

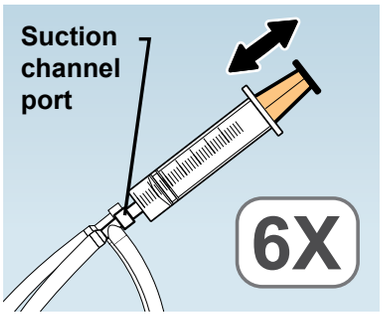
Explain that if the channels are found to be clogged, the endoscope should be immersed in the detergent solution for 30 minutes to remove the clogging of the channels.

b) After 30 minutes, perform additional suction and air/water channel flushes by repeating Steps 22 through 25.

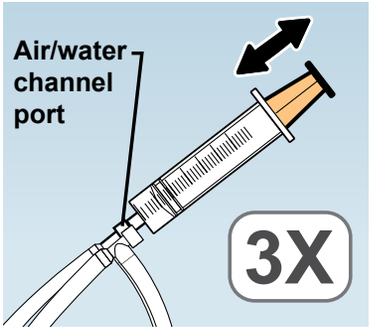
If air bubbles exited the endoscope's distal end during flushing BOTH the suction channel and air/water channel, proceed to Step 27.

Explain that if air bubbles did not exit the endoscope's distal end during second flushing of the channels, the endoscope may be damaged.

Steps 22-23



Steps 24-25



CONTINUED ON NEXT PAGE

Step 27-29: Detach the channel plug and injection tube from the endoscope, then remove the channel plug and the injection tube from the detergent solution.

Step 30: Allow the endoscope to soak completely in the detergent solution for more than 2 hours, but no more than 10 hours.

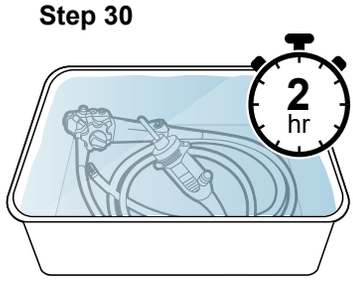
Step 31: Keeping the endoscope immersed in the detergent solution, wipe or brush all external surfaces using clean lint-free cloths, sponges, or brushes to remove any debris.

Step 32-33: Remove the endoscope from the detergent solution and proceed to manual cleaning (Chapter 5.5, “Manually clean the endoscope and accessories”).

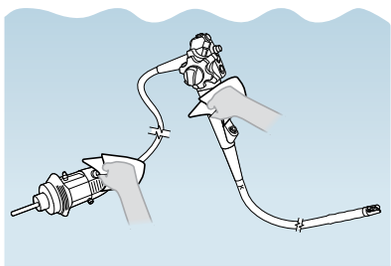
Explain the use of the detergent solution containing enzymes in manual cleaning.

Explain that the user should perform all steps of manual cleaning even when using an AER.

Step 30



Step 31



Section complete:

○ YES | ○ NO

5.9.2 Presoak the endoscope

Comments

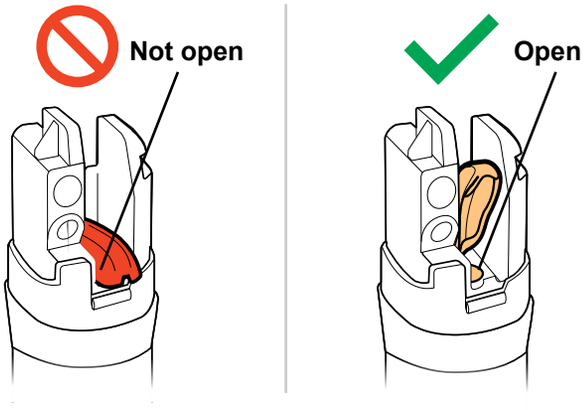
CONTINUED ON NEXT PAGE

8. Storage and Disposal

8.2 Store the disinfected endoscope and accessories

Reminders!

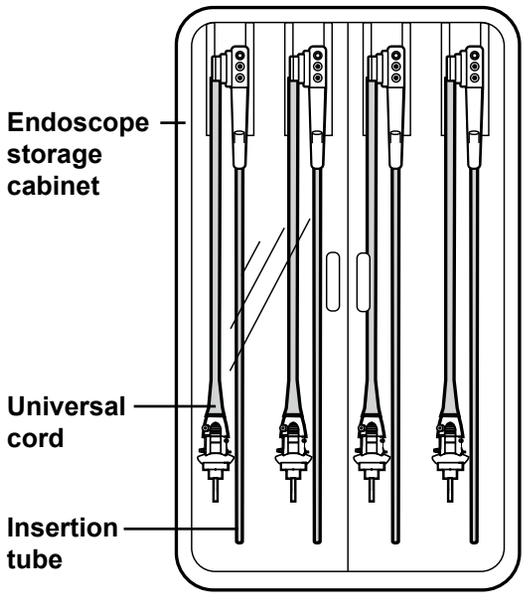
- Proper storage procedures are as important as proper reprocessing procedures in maintaining good infection control practices. To maintain proper storage procedures:
    - Be sure that the endoscope storage cabinet is properly maintained, clean, dry, and well ventilated. All equipment must be thoroughly dried prior to storage. Microorganisms proliferate in wet/moist environments. Keep the cabinet doors closed to protect the equipment from environmental contaminants and accidental contact.
    - Limit access to stored equipment by unauthorized personnel.
    - Store only adequately reprocessed endoscopes and accessories in the endoscope storage cabinet.
    - Do not store the endoscope and/or accessories in the endoscope's carrying case. The carrying case does not provide a proper storage environment for patient-ready endoscopes. Storing patient-ready endoscopes in the carrying case may pose an infection control risk. Use the carrying case only for shipping the endoscope and/or accessories. Any endoscope or accessory removed from a carrying case must be reprocessed prior to patient use or storage in an endoscope storage cabinet.
    - Never put a dirty endoscope into the carrying case, as it will contaminate the carrying case. It is not possible to adequately decontaminate a contaminated carrying case for further use as a shipping case.
- To prevent damaging the forceps elevator, make sure that the distal end's instrument channel outlet is opened or that the forceps elevator does not strike any objects.



CONTINUED ON NEXT PAGE

8.2 Store the disinfected endoscope and accessories (continued)

- Some national or professional guidelines recommend checking the quality of the final drying and if necessary, drying endoscopes manually with compressed filtered air before storage.
- Some professional guidelines as well as Olympus recommend storing endoscopes in an endoscope storage cabinet with the insertion tube and the universal cord hanging vertically, as pictured on the right.



Steps:

Step 1: Confirm that the air/water valve (MH-438), suction valve (MH-443), and biopsy valve (MB-358) are detached.

Step 2: Confirm that all the endoscope's and accessories' surfaces are dry.

Step 3: Place the endoscope's angulation locks in the "F ▶" position.

Step 4: Ensure that the distal end's instrument channel outlet is fully open.

Step 5: Store the disinfected endoscope and accessories properly.

Section complete:

○ YES | ○ NO

8.2 Store the disinfected endoscope and accessories

Comments

CONTINUED ON NEXT PAGE

Comprehension check

Confirm the trainee understands the reprocessing procedure with the following hands-on return demonstration and follow-up questions.

Indicate if the trainee has passed each item in the list by checking “Yes” or “No” in the rightmost column. If the trainee performs steps incorrectly or does not understand a task, provide additional explanation and training.

In the “Final assessment” section, indicate if the trainee has been deemed competent to perform the reprocessing procedure independently, or if the trainee requires extensive additional practice and training beyond what can be accomplished in the time allotted. With either response, provide additional details why the trainee was deemed competent or requiring extensive additional training.

Hands-on demonstration

Prompt to trainee: Today we are going to walk through some of the procedures we learned in our first training session one more time. I will ask you to perform certain parts of the procedure while I observe. I might also ask you some questions as we go.

Before we get started, do you have any questions about the procedure?

As a reminder, you are welcome to use the reprocessing manual as you perform these procedures. In fact, we encourage it. This is not a memory test! Instead, we want to make sure you feel comfortable and confident performing the procedures. I know I already gave you an opportunity to ask questions or share concerns, but please do continue to ask any questions as we go.

The trainer should verbally prompt trainees to perform a hands-on demonstration of each task listed in the table below. Additionally, the trainer should also ask trainees the follow-up questions below. The trainer will determine if each trainee “passed” each task, based on his/her hands-on demonstration and answers.

CONTINUED ON NEXT PAGE

Comprehension check (continued)

ID	Verbal prompt	Expected answer(s)	Related RM steps	Pass Yes	Pass No
1	Demonstrate how to aspirate water and air during precleaning. *Follow-up question:* 1. When using the KV-5 or KV-6 suction pump, what vacuum regulator setting should you use? 2. How long should you press the suction valve when aspirating water? Where should the distal end be located? 3. How long should you hold the suction valve when aspirating air? Where should the distal end be located? 4. What is the purpose of closing and opening the instrument channel three times during this step?	1. Maximum (all the way to the right). 2. 30 seconds; the distal end should be immersed in water. 3. 10 seconds; the distal end should be removed from the water. 4. To spread the water around the forceps elevator.	Chapter 5.3.5: Aspirate water and air	☐	☐
2	Demonstrate how to flush the air/water channel with water and air. *Follow-up question:* 1. How long should you press the AW channel cleaning adapter? Where should the distal end be located? 2. How long should you release the AW channel cleaning adapter? Where should the distal end be located? 3. How should you measure the time you are performing any timed steps?	1. 30 seconds; the distal end should be immersed in water. 2. 10 seconds; the distal end should continue to be immersed in water. 3. Use a clock or timer to measure the time accurately.	Chapter 5.3.6: Flush the air/water channel with water and air	☐	☐

CONTINUED ON NEXT PAGE

Comprehension check (continued)

ID	Verbal prompt	Expected answer(s)	Related RM steps	Pass Yes	Pass No
3	Perform a leakage test of the endoscope. *Follow-up question:* 1. What should you do with the endoscope during the entire leakage test procedure? 2. How should you keep track of the amount of time required for certain steps?	1. Keep the endoscope immersed fully in the water to ensure you see if any air bubbles escape 2. Use a clock or timer to accurately measure time.	Chapter 5.4: Leakage testing of the endoscope	☐	☐
4	Brush the forceps elevator and the forceps elevator recess. *Follow-up questions:* 1. How do you know when to finish brushing? 2. Why is it important to keep everything immersed while brushing? 3. Why should you clean the brush's bristles?	1. Brush until no debris is observed 2. To reduce infection risk and to avoid splashing the detergent solution and to remove any debris effectively 3. To prevent debris from reattaching to the endoscope	Chapter 5.5.3: Brush the forceps elevator and forceps elevator recess	☐	☐
5	Brush the endoscope's distal end and distal ring surfaces. *Follow-up questions:* 1. How do you know when to finish brushing? 2. Why is it important to keep everything immersed while brushing? 3. Why should you clean the brush's bristles?	1. Brush until no debris is observed 2. To reduce infection risk and to avoid splashing the detergent solution and to remove any debris effectively 3. To prevent debris from reattaching to the endoscope	Chapter 5.5.4: Brush the endoscope's distal end and distal ring surfaces	☐	☐

CONTINUED ON NEXT PAGE

Comprehension check (continued)

ID	Verbal prompt	Expected answer(s)	Related RM steps	Pass Yes	Pass No
6	Brush the suction/ instrument channel. *Follow-up question:* 1. What should you do if you see debris on the bristles after brushing?	1. Remove the debris and brush the channel again	Chapter 5.5.5.1: Brush the suction /instrument channel from the suction cylinder to the distal end, and 5.5.5.2 Brush the suction channel from the suction cylinder to the endoscope connector	☐	☐
7	Brush the suction cylinder and instrument channel port. *Follow-up question:* 1. How do you know when to finish brushing?	1. Brush until no debris is observed	Chapter 5.5.5.3: Brush the suction cylinder, and 5.5.5.4 Brush the instrument channel port	☐	☐
8	Attach the distal-end flushing adapter (e.g., MAJ-2319) to the distal end of the endoscope and flush the endoscope's distal end with detergent solution. *Follow-up questions:* 1. Why do you need to fully immerse the syringe? 2. Why do you need to fully immerse the distal end?	1. Fully immerse the syringe to prevent air from entering from the attached part of the syringe and the port 2. Fully immerse the distal end to prevent air from entering from the openings of the white and green covers	Chapter 5.5.6: Flush the endoscope's distal end with detergent solution	☐	☐

CONTINUED ON NEXT PAGE

Comprehension check (continued)

ID	Verbal prompt	Expected answer(s)	Related RM steps	Pass Yes	Pass No
9	Attach the suction cleaning adapter to the instrument channel port and aspirate detergent solution through the instrument and suction channels. *Follow-up questions:* 1. When using KV-5 or KV-6 as suction pump, what vacuum regulator setting should you use? 2. What is the purpose of closing and opening the instrument channel three times? 3. How should you keep track of the amount of time required for certain steps?	1. Maximum 2. To spread the detergent solution around the forceps elevator. 3. Use a clock or timer to accurately measure time.	Chapter 5.5.7: Aspirate detergent solution through the instrument channel and the suction channel	☐	☐
10	Use the injection tube (i.e., MH-946) to flush the air/water channel with detergent solution. *Follow-up question:* 1. How is filling a syringe different when using the injection tube than when using the distal-end flushing adapter?	1. You must fill the syringe before connecting it to the distal-end flushing adapter for the first flush. You should connect the syringe to the injection tube before filling it for the first flush.	Chapter 5.5.8: Flush the air/ water channel with detergent solution	☐	☐

CONTINUED ON NEXT PAGE

Comprehension check (continued)

ID	Verbal prompt	Expected answer(s)	Related RM steps	Pass Yes	Pass No
11	Keeping the endoscope and all accessories immersed in the disinfectant solution, wipe all external surfaces using a clean lint-free cloth to remove any air bubbles. *Follow-up question:* 1. Why should air bubbles be removed from the endoscope and the accessories in the disinfection process? 2. Why should you not remove the endoscope from the disinfectant solution?	1. Remaining air bubbles may not allow the area to contact the disinfectant solution, preventing disinfection of the area. 2. To prevent air from adhering to surfaces.	Chapter 5.6.4: Immerse the endoscope and accessories in disinfectant solution	☐	☐
12	Blow compressed filtered air through the endoscope channels. *Follow-up question:* 1. How do you know when to finish the blowing?	1. Blow until no alcohol exits from the openings of the endoscope.	Chapter 5.7.4: Dry the endoscope	☐	☐
13	*Additional follow-up questions:* 1. What should you do if the reprocessing was not started within one hour after the procedure finished? 2. Which chapter of the reprocessing manual should you follow?	1. Perform presoaking. 2. Chapter 5.9	Chapter 5.9: Presoak the endoscope	☐	☐

CONTINUED ON NEXT PAGE

Comprehension check (continued)

Final Assessment

- ○ Trainee is able to perform the reprocessing procedure independently
- ○ Trainee requires extensive additional training

Comments

SUBMIT

Click Submit button and attach this document once completed.

OLYMPUS CANADA INC.
25 Leek Cr., Richmond Hill, ON L4B 4B3

For more information, contact your Olympus
sales consultant, or call 800-848-9024.
www.medical.olympuscanada.com

Printed in USA OCIGI0622FLY45490