





LEAK TESTING AND CLEANING OF PENTAX BRONCHOSCOPE POST PROCEDURE	
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5.7 Change Wassenburg Endohigh Detergent from 80 to 75 mls 5.4: Change in the process regarding transport to include a rigid transport container. 5.12 Includes the cleaning of this container.	To reflect new process.

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1.0 Purpose

To outline the procedure for leak testing and manual cleaning of Pentax Bronchoscopes post procedure. To ensure all RIMD sets (including flexible scopes) are traced through the decontamination process to the service users. To ensure RIMD are checked and reprocessed in accordance with the manufacturer's instructions.

2.0 Definition of Terms

Endoscopes: Flexible Bronchoscopes, gastroscopes, colonoscopes.

Cleaning: A process using friction, detergent and water to remove soil, including organic debris.


High-level disinfection: A process that destroys all micro-organisms with the exception of high numbers of bacterial spores. High-level disinfectants have the capability of inactivating the hepatitis B virus, HIV and Mycobacterium tuberculosis.

3.0 Responsibility

It is the responsibility of each staff member leak testing and manually washing an **endoscope to follow the correct procedure.**

4.0 Guideline

- 4.1 Endoscopes are leak tested and manually cleaned immediately after use.
- 4.2 Endoscopes are checked, as applicable, for defects, damage, functionality, and cleanliness throughout the decontamination process, while in storage and before use on the patient.
- 4.3 In addition, expiry time and date is checked before use on the patient.
- 4.4 Failure to properly clean and perform high-level disinfection of endoscopic equipment after each examination can compromise patient safety.
- 4.5 To minimise the risk of transmitting diseases from one patient to another after each examination, the endoscope must undergo thorough manual cleaning immediately after use followed by high-level disinfection.
- 4.6 If the endoscope is not cleaned meticulously, effective disinfection may not be possible. The endoscope must be leak tested and manually cleaned thoroughly before disinfection to remove microorganisms or organic material that could reduce the efficacy of the disinfection.
- 4.7 The Pentax endoscope suction button, uniquely coded to each Pentax endoscope, is returned to HSSD in its designated basket for autoclave sterilization.
- 4.8 The endoscope itself must be internally and externally rinsed after manual cleaning and before being placed in the automated washer disinfectant. Rinse water must be visibly clean. If not, repeat manual wash.
- 4.9 A routine water sample is taken from each endoscope monthly for microbiological examination in the laboratory. In addition if the scope is used on a patient with an I.C. alert follow the SOP “

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Management of endoscope used on patient with known or suspected I.C. alert “ , a water sample from the suction channel and / or dry swab sample from the external surface of the scope must be taken after decontamination. Scope is then set aside or quarantined, if applicable, until results return from Microbiology lab.

- 4.10 The biopsy cap is disposed of in the yellow clinical waste bag

5.0 Procedure

- 5.1 Personal protective equipment must be worn as outlined in SOP “Attire to be worn when cleaning Endoscope “.
- 5.2 Use cleaning brush ref. no. PBC – 1824A for large 5.1 Pentax Bronchoscope model no. EB 1570 K
Use cleaning brush ref. no. PBC – 1215A for all other Pentax Bronchoscopes
- 5.3 At bedside place distal end of endoscope into diluted Wassenburg Endohigh cleaner solution (1.25 mls: 250 mls H₂O) aspirate for 10 secs.
- 5.4 Ensure protective camera cap is attached, if applicable, take endoscope to sink in the designated rigid scope container lined with the sterile tray liner and covered with the red plastic cover and lid applied. Transport to washroom in the trolley marked Contaminated Scopes. If there is a delay in bringing endoscope to the sink, wipe down externally with detergent soaked cloth
- 5.5 Discard biopsy cap in clinical waste bag, remove suction control valve, place back in designated silver basket for HSSD collection
- 5.6 Perform dry leak test i.e. attach Pentax leak tester (leave same attached until manual cleaning is complete), inflate gauge indicator to green zone, check for any leaks (continuous bubbles) observe instrument while angulating tip. Check scope for functionality and any defects or damage
- 5.7 Fill sink with 15 litres water (sink marked to this level) (don't immerse leak tester hand piece) observe instrument while angulating tip. A few bubbles may occur, this is normal but if there is a continuous stream of bubbles from same spot, this indicates a leak. Remove immediately from water, release pressure from tester, remove tester, externally wipe down endoscope with detergent solution, dry brush internal channels as per 5.9 below send to Sword Medical for repair as per SOP “ Sending Pentax , Olympus or Wolf Endoscope for repair “. Suitcases kept in ground floor theatre store room.

If there is no leak, proceed to cleaning by adding 75mls Wassenburg Endohigh cleaner i.e. press detergent pump once to 15 litres of water already in sink.

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- 5.8 Use detergent soaked J cloth to clean all external parts , use large disposable cleaning brushes to clean external channels , then medium cleaning brush to clean inside suction channel , then small cleaning brush to clean biopsy channel , inserting brush a minimum of 3 times and cleaning it each time before re inserting. Change water and detergent solution if necessary. Do not use excessive force. Do not squeeze or bend endoscope. Never insert brush in opposite (distal) end. Use 20ml syringe to flush detergent solution through suction channel 3 times. (minimum 60 mls)
- 5.9 Empty sink, rinse endoscope internally (use 20 ml syringe, minimum 60 mls flush and externally in clean water (rinse water should be run clear) release pressure and detach leak tester. Never remove or connect leak tester under water as this can cause water leakage into endoscope. If there is a delay in loading the endoscope into the washer/disinfector flush 60 mls air into the suction channel.
- 5.10 Load into washer / disinfector as per SOP "Loading endoscope into Wassenburg Washer / Disinfector.
- 5.11 Place patient addressograph into manual cleaning record book. Record scope barcode on the addressograph, tick and sign relevant sections of manually cleaning record.
- 5.12 The transport container is then cleaned. This cleaning process involves manually washing the designated rigid scope container with water and Brial detergent. Then dried and wiped with Azowipe and placed in the transport trolley marked for Contaminated Scopes.

6.0 References

HSE Standards and Recommendations for Endoscope Reprocessing 2012 Version 2.2
Pentax Owner's Manual, 2011

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