Workshop on Endoscope disinfection & sterilization and infection control related to VAP

Endoscope reprocessing: Local challenges

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TMH CEC
Ward manager

Contents

- Reprocessing endoscopes
- Pilot – validation tests in NTWC
- Tracking and tracing of endoscopes and accessories
- Local Challenges

Spaulding Classification

Device classification	Level of Risk	Definition	Devices (examples)	Spaulding process classification
Critical	High	Entry or penetration into sterile tissue or blood	Implants, scalpels, needles, other surgical instruments, etc.	Sterilization
Semi-critical	Medium	Contact with intact non-sterile mucosa or non-intact skin	Flexible endoscopes, larngoscopes, respiratory and anesthesia equipment	High-level Disinfection
Non critical	Low	Contact with intact skin	Stethoscopes, BP cuffs, bedpans, etc.	Low-level disinfection

Steps in Decontamination of flexible endoscope

Pre-cleaning

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Leakage Testing

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Manual Cleaning

↓

Disinfection

↓

Drying

↓

Storage

↓

Documentation

Disinfection

- □□Automatic reprocessor
- Manual disinfection

Automatic Endoscope Reprocessor (AER)

- Double doors (Pass through) concept
- Close system for preparing & draining disinfectant
- Internal water piping disinfection cycle available

safety notice below from HAHO regarding “Possible Anaphylaxes to ASP CIDEX OPA Solution supplied by JnJ”

B. Rinsing Instructions

1. RINSING PROCEDURE

a) Manual Processing:

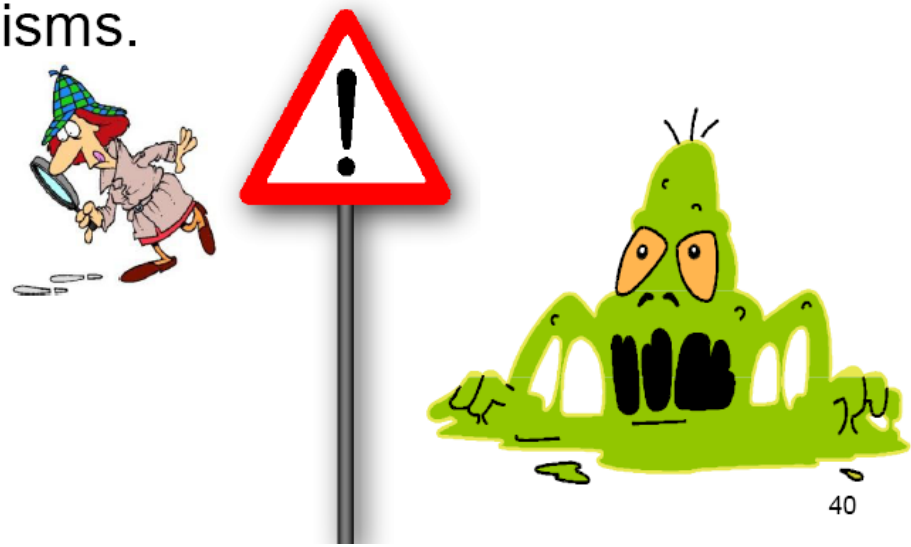
- Following removal from CIDEXR OPA Solution, thoroughly rinse the medical device by immersing it completely in a large volume (e.g. 8 litres) of water. Use sterile water unless potable water is acceptable. See item 2 or 3 below.
- Keep the device totally immersed for a minimum of 1 minute in duration, unless a longer time is specified by the reusable device manufacturer.
- Manually flush all lumens with large volumes (not less than 100ml) of rinse water unless otherwise noted by the device manufacturer.
- Remove the device and discard the rinse water. Always use fresh volumes of water for each rinse. Do not reuse the water for rinsing or any other purpose.
- Repeat the procedure TWO (2) additional times, for a total of THREE (3) RINSES, with large volumes of fresh water to remove CIDEXR OPA Solution residues. Residues may cause serious side effects. SEE WARNINGS.

THREE (3) SEPARATE, LARGE VOLUME WATER IMMERSION RINSES ARE REQUIRED.

- Refer to the reusable medical device manufacturer’s labelling for additional rinsing instructions.

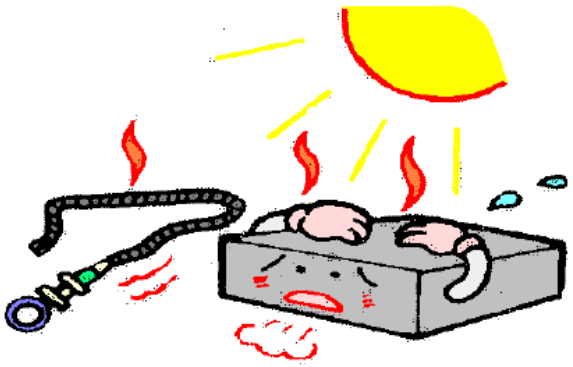
Drying

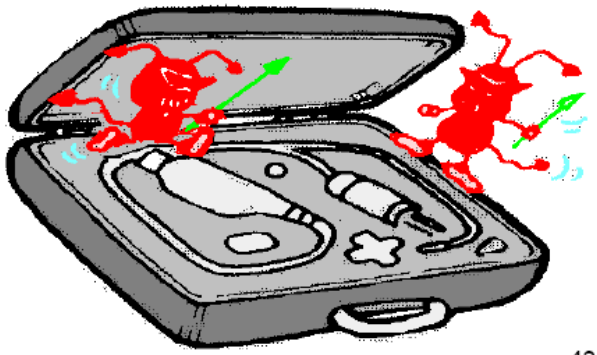
- True and pseudo outbreaks of waterborne microorganisms are always associated with wet or inadequately dried lumens of endoscope.
- 70% alcohol flushing is recommended before storage to
  - reduce risk of remaining pathogen
  - Possibility of recontamination of endoscope by waterborne microorganisms.



Storage

1. Hang endoscope vertically in a clean, dry and well-ventilated cabinet with all valves & water resistant cap removed.
2. Or hold endoscope horizontally on a flat surface with continuous air flow through each channel
3. Never store endoscope in the carrying case.





Background

Quality Systems
Medical Devices
ISO EN 13485:2003

Reference to Policy of Corporate

Quality Manual
Policies and procedures

Decontamination Equipment

- Washer Disinfectors
  ISO 15883
  HTM2030 (UK)
- Sterilizers
  ISO 285, 17665
  HTM2010 (UK)
- Other Equipment
  ISO 14937

The Facility

- Design
  HBN13 (UK)
- Environment
  ISO 14644

Management

Training
Resources Monitoring
Auditing
Customer Focus
Tracking & Tracing of Instruments

Pilot in NTWC

- Committee of Decontamination and Sterilization – co ordinate

Validation test schedule -

- A. Automated endoscope reprocessor (AER)
- B. Ultrasonic cleaner
- C. Endoscope
- D. Scope cabinet

Validation Test Schedule

Item	Test Description	Weekly	Monthly	Quarterly	Annually
A.	**Automated Endoscope Reprocessor (AER)**				
	1. Soil Test for reference load			✓	
	2. Final rinse water for viable count			✓	
	3. Final rinse water for organism (Legionellae, Mycobacteria Pseudomonas Aeruginosa)				✓
	4. Residual proteinaceous contamination test	✓			
	5. Feed water quality test				✓
	6. Inspection and maintainence test				✓

Validation Test Schedule

Item	Test Description	Weekly	Monthly	Quarterly	Annually
B.	**Ultrasonic Cleaner**				
	1. Soil Test for reference load			✓	
	2. Aluminium foil test		✓		
	3. Sono-test			✓	
	4. Functional checking		✓		
	5. Feed Water quality test				✓
	6. Inspection and maintainence test				✓

Validation Test Schedule

Item	Test Description	Weekly	Monthly	Quarterly	Annually
C.	**Endoscope**				
	1. Residual proteinaceous contamination test post manual cleaning				✓
	2. Competency audit in reprocessing of endoscope				✓
D.	**Scope Cabinet**				
	1. Rinse water for viable count				✓

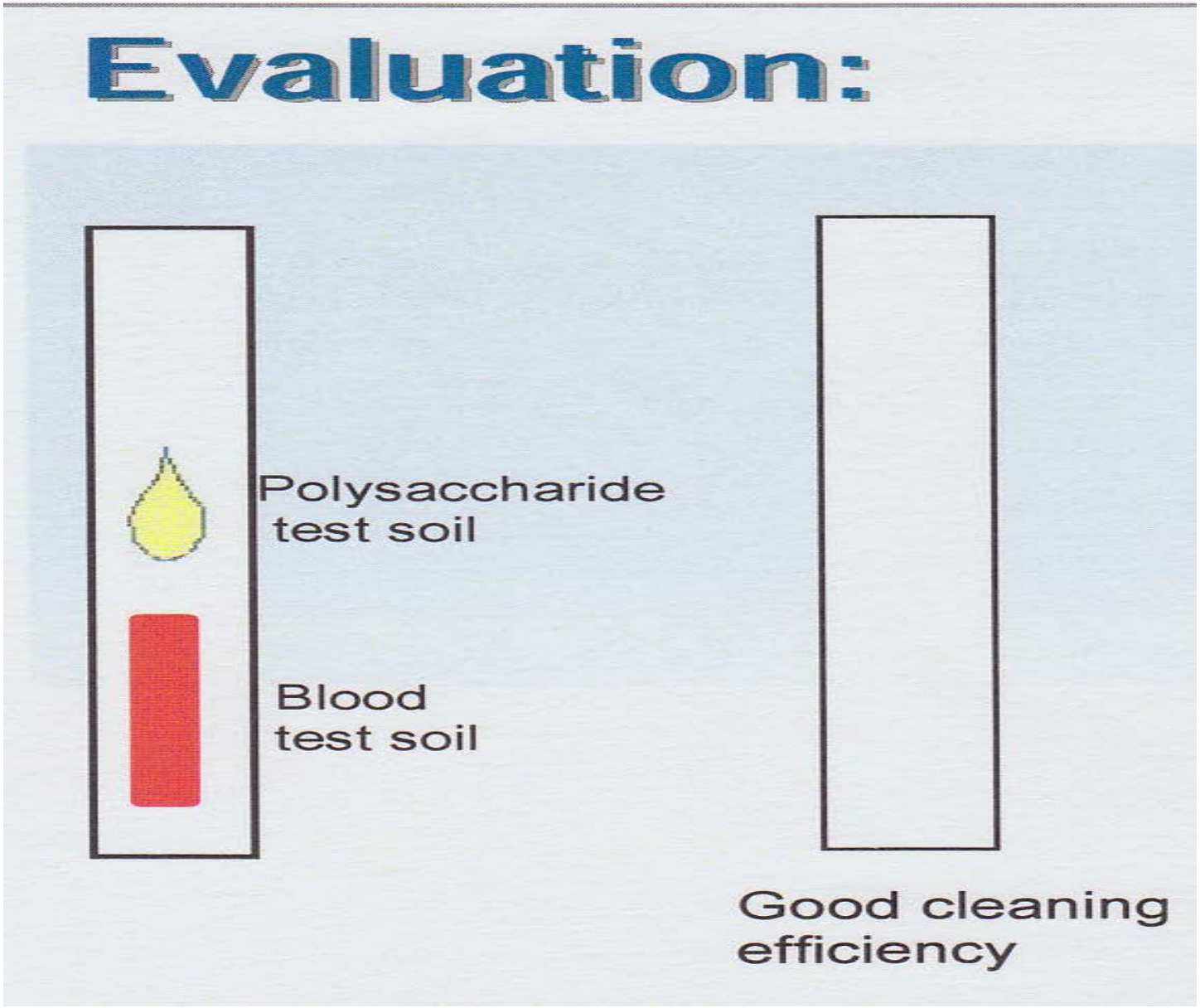
Validation Test for AER – Soil Test

Validation Test for AER – Soil Test for Reference Load (Quarterly)

- TOSI-Flexi Check
- Monitoring the cleaning efficacy of flexible endoscope washers
- Immediate results
- YES/NO answer for cleaning efficacy
- Additional diagnostic feature in case of cleaning problems

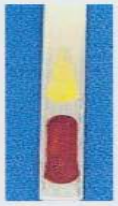
Validation Test for AER
– Soil Test for Reference Load

Validation Test for AER – Soil Test for Reference Load



Validation Test for AER – Soil Test for Reference Load

TOSI® – FlexiCheck Troubleshooting Guide

	**Positive result:** Both test-soils completely removed.
	**Result:** Polysaccharid-test soil completely removed but visible residue of fibrin left. **Indication for:** Protein dissolving parameters not optimal **Optimisation:** Check and/or correct: Cleaning time / temperature / detergent efficiency / dosing
	**Result:** Blood-test soil completely removed but visible residue of Polysaccharide left. **Indication for:** Polysaccharide dissolving parameters not optimal **Optimisation:** Check and/or correct: Water quality / detergent efficiency and dosing / Cleaning time and temperature
	**Result:** Polysaccharide-test soil completely removed but red protein residue left. **Indication for:** Protein denaturating effects (heat or disinfecting agents) **Optimisation:** Check for high temperature or disinfecting agents during the wash cycle. Run cold pre-rinse if possible.
	**Result:** Both spots of test soil completely left. **Indication for:** Missing flow / No cleaning efficiency. **Optimisation:** Check connection of FlexiCheck , machine and cleaning program.

Validation Test for AER – Soil Test for Reference Load

Record keeping for designated AER

Tuen Mun Hospital T6 EDU

Automatic Endoscopic Reprocessor's Cleaning Efficacy - Soil Test for Reference Load Record

Test Frequency: Quarterly Test, Annually Test

Model: OER-AW (OER 3) S/N: 2900121 AID: 608855

A.1.

	Jan 2012	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Date							10 JUL 2012	23/8		10 OCT 2012		6 DEC 2012
Soil Test Result							Pass.	Pass		Pass		Pass
Inspector 's Name & Rank							KWOK MEI WANG RN	KWOK MEI WANG RN		KWOK MEI WANG RN		KWOK MEI WANG RN

	Jan 2013	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Date	09 JAN 2013		04 MAR 2013		6 MAY 2013		4 JUL 2013		9 SEP 2013			
Soil Test Result	Pass.		Pass		Pass		Pass		Pass	Repair	Repair	Repair
Inspector 's Name & Rank	KWOK MEI WANG RN				KWOK MEI WANG RN		KWOK MEI WANG RN		APN B1595 KWOK MEI WANG			

	Jan 2014	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Date		27 FEB 2014				4/6/14			2 SEP 2014			
Soil Test Result	Repair					Pass			PASS.			
Inspector 's Name & Rank		EN Ka Yee				Wong Yin Kan EN			2nd Wong Yin Kan			

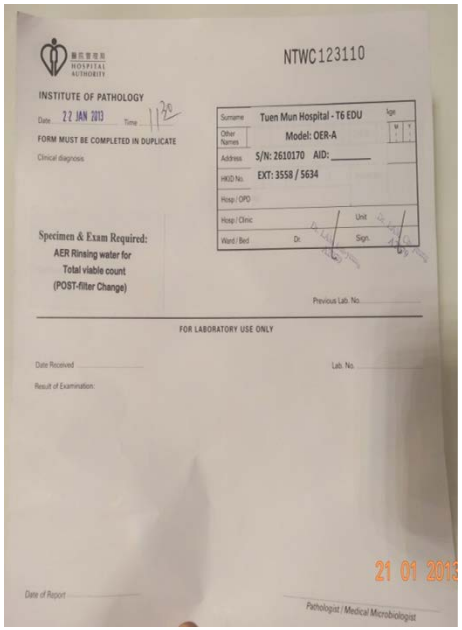
Validation Test for AER – Final Rinse Water for Viable Count (Quarterly)

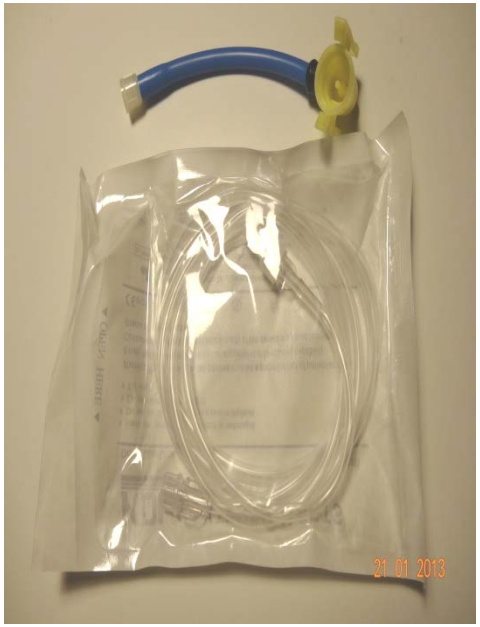
Aim: The microbiological quality test of post-disinfection rinse water and determine whether the AER is bacteria free.

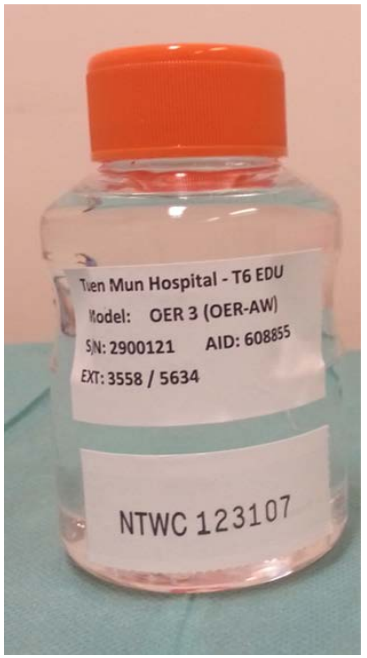
Method of sampling

1. Ensure sterile sealed bacteria-retentive 0.2 microns filter is use in AER.
2. Select the self-disinfection cycle of AER and start the program.
3. Run a normal process after performing a self-disinfection procedure.
4. Wipe the outlet of the AER where it normally attaches to the endoscope with 70% alcohol and allowing it to air dry.
5. Connect the appropriate adaptor with sterile tubing to the disinfected outlet.
6. Select the rinse cycle mode, run 50 ml through the tubing and discard.
7. Collect a 250ml sample of water in a sterile specimen bottle by using aseptic handling technique.
8. Label the specimen and fill in the appropriate specimen request form (HA161) properly.
9. Send the obtained specimen to the laboratory as soon as possible.
10. Document the result to designated recording book.

Validation Test for AER
– Final Rinse Water for Viable Count







Validation Test for AER – Final Rinse Water for Viable Count

Re-sampling is needed if the laboratory result is not acceptable

1. Take AER out of service when the laboratory result is failed (Total viable count: >10 C.F.U./100ml).
2. Verify the effectiveness of the disinfection process.
3. Verify the process parameters that can influence the effectiveness of disinfection process.
4. Determine the concentration of the active ingredient in the disinfectant.
5. Re-obtain the specimen by excluding the factors that can influence the effectiveness of disinfection process.
6. Isolate the involved AER until the laboratory result is acceptable.

Validation Test for AER – Final Rinse Water for Viable Count

NTWC TMH –E3 Ward Combined Endoscopy Centre

Automatic Endoscopic Reprocessor's Cleaning Efficacy - Final Rinse Water for Total Viable Count Test Record

Test Frequency: Quarterly Test, Annually Test

Model: OER-AW (OER 3) S/N: 2900121 AID: 608855

	Jan 2013	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Date	21 JAN 2013		04 MAR 2013		07 MAY 2013		08 JUN 2013		09 SEP 2013			
Test Result	Pass		Pass		Pass		Pass		Pass	Repair	Repair	Repair
Staff Name & Rank	RN Cheong, Tsz Ying		RN Cheong, Tsz Ying		RN Cheong, Tsz Ying		RN Cheong, Tsz Ying		RN Cheong, Tsz Ying			

	Jan 2014	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Date		27 FEB 2014				04 JUN 2014		26/8/2014				
Test Result	Repair	Pass				Pass	Repair	Pass				
Staff Name & Rank		RN Cheong, Tsz Ying				RN Cheong, Tsz Ying		EN B4706 HO, KA YEE				

	Jan 2015	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Date									
Test Result									
Staff Name & Rank									

Record keeping for designated AER

Validation Test for AER
– Final Rinse Water for Organism (Anually)

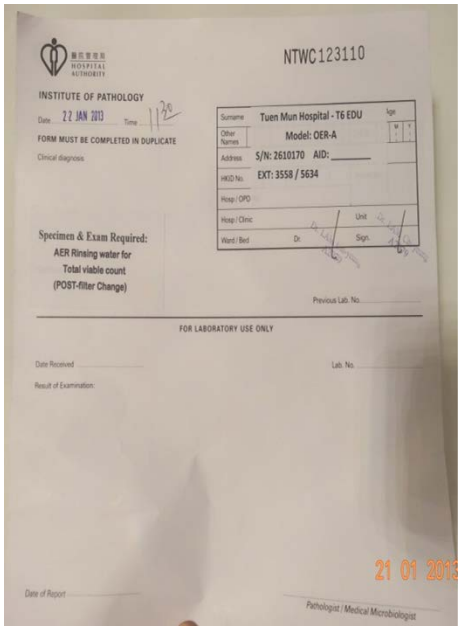
Aim: The microbiological quality test of post-disinfection rinse water and determine whether the AER is free from Legionella, Mycobacteria and Pseudomonas Aeruginosa

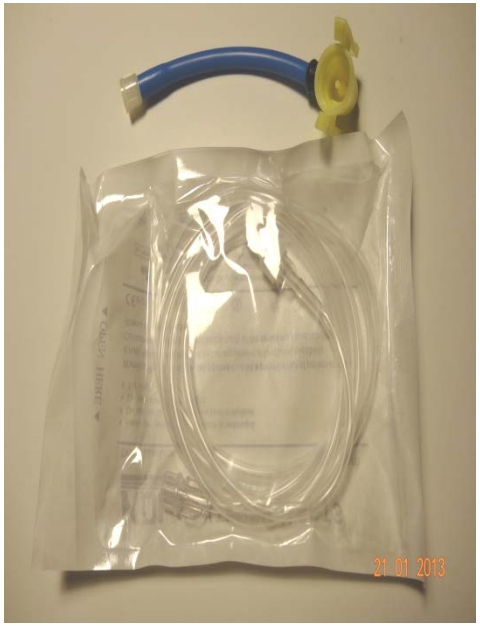
Method of sampling

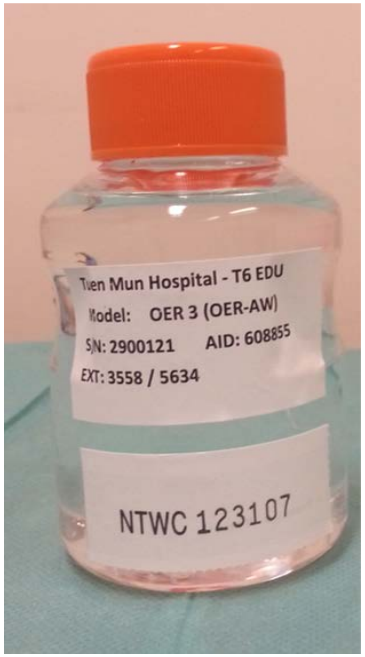
1. Ensure sterile sealed bacteria-retentive 0.2 microns filter is use in AER.
2. Select the self-disinfection cycle of AER and start the program.
3. Run a normal process after performing a self-disinfection procedure.
4. Wipe the outlet of the AER where it normally attaches to the endoscope with 70% alcohol and allowing it to air dry.
5. Connect the appropriate adaptor with sterile tubing to the disinfected outlet.
6. Select the rinse cycle mode, run 50 ml through the tubing and discard.
7. Collect a 500ml sample of water in a sterile specimen bottle by using aseptic handling technique.
8. Label the specimen and fill in the appropriate specimen request form (HA161) properly.
9. Send the obtained specimen to the laboratory as soon as possible.
10. Document the result to designated recording book.

Validation Test for AER
– Final Rinse Water for Organism

Re-sampling is needed if the laboratory result is not acceptable







Validation Test for AER
– Final Rinse Water for Organism

Tuen Mun Hospital T6 EDU

Automatic Endoscopic Reprocessor's Cleaning Efficacy - Final Rinse Water for 1. Legiouellae 2. Mycobacteria 3. Pseudomonas aerugiuosa

Test Frequency: Annually Test

Model: OER-AW (OER 3) S/N: 2900121 AID: 608855

A4

	Jan 2012	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Date											13 NOV 2012	
Test Result											Pass	
Inspector 's Name & Rank											[illegible] MEI WANG	

	Jan 2013	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Date									9 SEP 2013			
Test Result									Pass.	Repair	Repair	Repair
Inspector 's Name & Rank									APN B1585 KWOK MEI WANG			

	Jan 2014	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Date						04 JUN 2014						
Test Result	Repair	Repair	Repair	Repair	Repair	Pass						
Inspector 's Name & Rank						RM Cheung, Tsz Ying						

Hospital Authority
NTWC Pathology Service

Microbiology Laboratory

Lab No: 14MB655691 (MR311801R/TM)
Name: OER 3 (OER-AW) SN:2900121

HKID No: %R-TMHE3OER3
Hosp No: %MB855314K5746
Location: TMH/%EDU/E3 Bed:
Sex/Age: UNKNOWN/UNKNOWN DOB: UNKNOWN
Req. Loc.: TMH/%EDU/E3
Doctor: Unknown

M

Date Collected : 04/06/2014 15:00
Date Arrived : 04/06/2014 15:16
Specimen :- FINAL RINSE WATER
Site :- AID:608855

Comment :-

Total viable count: 1 C.F.U./100 mL

No Pseudomonas aeruginosa, Legionella or Mycobacteria isolated.

SUPPLEMENTARY REPORT.

MICROBIOLOGY REPORT

No Legionella, Mycobacteria or Pseudomonas Aeruginosa isolated

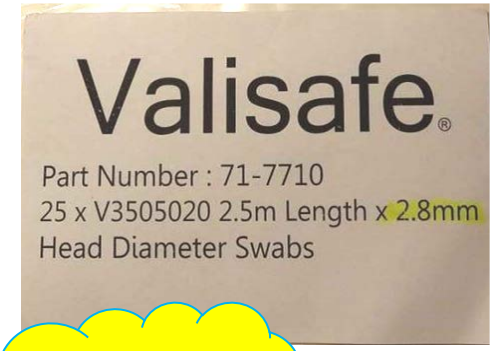
PASS

Entered by : W.K. Choy (MT)
Authorized by : W.K. Choy (MT)
This Laboratory is accredit[illegible] National Association of Testing Authorities Australia
[illegible]Accreditation Number : 14281
********** End of report **********

Report Date & Time: 02/07/2014 14:16 Print on: 02/07/2014 14:32
Report Destination: TMH/ /E3 E3, TMH Page No.: 1/1

Validation Test for AER – Final Rinse Water for Residual Proteinaceous Contamination Test (Weekly)

For 1.8 mm Scope Chanel



For 2.8 mm Scope Chanel

Tuen Mun Hospital
Automatic Endoscopic Reprocessor's Cleaning Efficacy -
Residual Proteinaceous Contamination Test Record
Test Frequency: Weekly Check

Yr: 2013 Model: OER-3 S/N: 2900121 AID: 608855

Week	Date & Time	Scope Model	Endoscope Code	Result	Name & Rank of Inspector
1	31 DEC 2012	GIF-H60	GIF38	Pass / Fail	KWOK MEI WANG RN
	31 DEC 2012	GIF-H60	GIF37	Pass / Fail	KWOK MEI WANG RN
2	07 JAN 2013	GIF-H60	GIF40	Pass / Fail	KWOK MEI WANG RN
	07 JAN 2013	GIF-H260	GIF55	Pass / Fail	KWOK MEI WANG RN
3	14 JAN 2013	GIF-H260	GIF54	Pass / Fail	KWOK MEI WANG RN
	14 JAN 2013	GIF-H60	GIF41	Pass / Fail	WOK MEI WANG RN
4	21 JAN 2013	GIF-H60	GIF38	Pass / Fail	KWOK MEI WANG RN
	21 JAN 2013	GIF-H60	GIF37	Pass / Fail	KWOK MEI WANG RN
5	30 JAN 2013	GIF-H60	GIF41	Pass / Fail	KWOK MEI WANG RN
	30 JAN 2013	BF-260	BF47	Pass / Fail	KWOK MEI WANG RN
6	05 FEB 2013	GIF-H60	GIF36	Pass / Fail	KWOK MEI WANG RN
	05 FEB 2013	GIF-H60	GIF30	Pass / Fail	KWOK MEI WANG RN
7	15 FEB 2013	GIF-H60	GIF41	Pass / Fail	KWOK MEI WANG RN
		GIF-H260	GIF48	Pass / Fail	KWOK MEI WANG RN
		CF-H260AL	CF30	Pass / Fail	KWOK MEI WANG RN
		H-260M	CF17	Pass / Fail	KWOK MEI WANG RN
		-160	GIF 36	Pass / Fail	? RN CHEONG TSZ YING
		-160	GIF 31	Pass / Fail	
		F-H60	GIF40	Pass / Fail	? RN CHEONG TSZ YING
		GIF-H260	GIF54	Pass / Fail	
		CF-H260AL	CF 21	Pass / Fail	? RN CHEONG TSZ YING
	11 MAR 2013	GIF-H260	GIF55	Pass / Fail	
12	19 MAR 2013	GIF-H260	GIF55	Pass / Fail	RN CHEONG TSZ YING
	19 MAR 2013	GIF-160	GIF36	Pass / Fail	RN CHEONG TSZ YING

Record keeping for designated AER

Validation Test for AER – Feed Water Quality Test (Annually)

CMA Testing and Certification Laboratories
廠商會檢定中心

TEST REPORT

Report No. : AS0046348(3) Date : 05 Aug 2014

Application No. : LS027448(3)

Applicant : ELECTRICAL & MECHANICAL SERVICES DEPT.
3 KAI SHING STREET,
KOWLOON,
HONG KONG

Sample Description : Thirteen (13) batches of wastewater sample sampled by the staff of CMA Industrial Development Foundation Limited at the following location. Samples were refrigerated during delivery.

Preservation and Storage : All samples were preserved as APHA 21ed 1060C.

Sampling Location : Washer Disinfector (Endospace) at EDU Tuen Mun Hospital.

Sampling Date : 24 Jul 2014.

Date Received : 24 Jul 2014.

Test Period : 24 Jul 2014 to 04 Aug 2014.

Test Requested :
1. Calcium
2. Magnesium
3. Sodium
4. Potassium
5. Fluoride
6. Total Residual Chlorine (on-site measurement)
7. Chloramine
8. Nitrate Nitrogen
9. Sulphate
10. Copper
11. Barium
12. Zinc
13. Aluminium
14. Arsenic
15. Lead
16. Silver
17. Cadmium
18. Chromium
19. Selenium
20. Mercury

For and on behalf of
CMA Industrial Development Foundation Limited

Authorized Signature : _____
Tang Tsz Wang
Deputy Manager
Environmental Division

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CMA Industrial Development Foundation Limited
Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St., Fo Tan, Shatin, N.T., Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

Water Quality Test Resference

Department of Health (UK) (2013): Choice Framework for local Policy and Procedures 01-01 – Management and decontamination of surgical instruments (medical devices) used in acute care.
Part D: Washer-disinfectors

Table 6 Requirements for water quality: final rinse and process water

Determinant and unit	Maximum permitted values	
	Final rinse	Other stages
Appearance	Clear, colourless	–
Degree of acidity (pH)	5.5 to 8.0	–
Conductivity at 25°C (uS/cm)	30	–
Total dissolved solids (mg/100 mL)	4	–
Total hardness, $CaCO_3$ (mg/L)	50	210
Chloride, Cl (mg/L)	10	120
Heavy metals, determined as Lead, Pb (mg/L)	10	–
Iron, Fe (mg/L)	2	–
Phosphate, P_2O_5 (mg/L)	0.2	–
Silicate, SiO_2 (mg/L)	0.2	2
Total viable count (TVC) at 22°C at 37°C (cfu/100 mL)	100 100	–
Bacterial endotoxins (EU/mL)	0.25	–

Validation Test for AER – Feed Water Quality Test

TEST REPORT

Report No. : AS0046348(3)

Date : 05 Aug 2014

Application No. : LS027448(3)

Test Results :

Test Items	Units	Results												
		Inlet	OER 3	OER 4	OER 5	OER 6	OER 7	OER 8	OER 9	OER 10	MED 1A	MED 1B	MED 2A	MED 2B
1. Calcium	mg/L	20	14	13	16	15	10	10	11	10	10	10	10	11
2. Magnesium	mg/L	2.1	2.4	1.7	1.6	1.8	1.8	1.8	1.6	1.6	1.6	1.7	1.5	1.9
3. Sodium	mg/L	5.1	6.9	4.8	3.8	3.6	4.9	5.2	4.3	4.0	3.5	4.0	3.7	6.0
4. Potassium	mg/L	2.0	2.4	2.3	2.2	1.8	2.4	2.3	2.0	2.3	1.8	1.9	2.6	1.8
5. Fluoride	mg/L	0.58	0.60	0.64	0.58	0.52	0.61	0.60	0.60	0.62	0.56	0.59	0.58	0.59
6. Total Residual Chlorine	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
7. Chloramine	mg/L	0.2	0.6	1.2	0.9	0.2	<0.1	<0.1	<0.1	0.8	0.4	0.4	1.8	1.1
8. Nitrate Nitrogen	mg/L	1000	480	880	460	1000	390	1100	390	710	490	540	600	750
9. Sulphate	mg/L	8	7	8	8	8	7	8	8	9	8	7	7	7
10. Copper	mg/L	0.055	0.031	0.33	0.46	0.049	0.029	0.028	0.034	0.030	0.039	0.028	0.035	0.039
11. Barium	mg/L	0.026	0.015	1.1	0.014	0.019	0.024	0.013	0.016	0.013	0.013	0.014	0.013	0.016
12. Zinc	mg/L	0.090	0.10	0.13	0.22	0.16	0.063	0.058	0.16	0.092	0.17	0.078	0.14	0.18
13. Aluminium	mg/L	0.30	0.29	0.56	0.35	0.36	0.48	0.73	1.1	0.45	0.29	0.46	0.43	1.3
14. Arsenic	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
15. Lead	mg/L	0.004	0.002	0.002	0.003	0.004	0.002	<0.002	0.004	<0.002	0.004	0.004	0.004	0.004
16. Silver	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
17. Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.003	0.044	<0.002
18. Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	0.002	0.004	0.002	0.002
19. Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
20. Mercury	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

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CMA Industrial Development Foundation Limited
Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St., Fo Tan, Shatin, N.T., Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

CMA Testing and Certification Laboratories
香港檢定中心

Validation Test for AER – Inspection and maintainence by Vendor / EMSD (Annually)

L43, Office Tower, Langham Place, 8 Argyle Street, Mongkok, Kowloon, Hong Kong
Tel: (852) 2376 1805 Fax: (852) 2376 0130

Date 31 Aug-14

Hospital TMH Unit EDU Person In Charge Ms. Isabella Lee T: Inspector MR Leung

Address E3 CEC. Contact Phone No 2468 5629 Sales Person

B / INSPECTION FOR OTHER PRODUCTS

	MODEL	SERIAL NO.	SERVICE CONTRACT	LAMP LIFE	INSPECTION DETAILS	Earh Leakage check NC < 0.5mA SFC < 1mA	Enclosure leakage check NC < 0.1mA SFC < 0.5mA	Earth bond check < 0.1ohm @ 25A 10s	RESULT	NEED REPAIR
1	OER-AW 6	2321059	YES / NO		changed silencer function OK	✓	✓	✓	OK / NG	YES / NO
2	OER-AW 7	2321060	YES / NO		〃 〃 〃 〃	✓	✓	✓	OK / NG	YES / NO
3	OER-AW 8	2321061	YES / NO		〃 〃 〃 〃	✓	✓	✓	OK / NG	YES / NO
4	OER-AW 9	2321062	YES / NO		〃 〃 〃 〃	✓	✓	✓	OK / NG	YES / NO
5	OER-AW 10	2321063	YES / NO		〃 〃 〃 〃	✓	✓	✓	OK / NG	YES / NO
6	OER-AW 5	2321069	YES / NO		〃 〃 〃 〃	✓	✓	✓	OK / NG	YES / NO
7	OER-AW 4	2321073	YES / NO		〃 〃 〃 〃	✓	✓	✓	OK / NG	YES / NO
8	OER-AW 3	2900121	YES / NO		〃 〃 〃 〃	✓	✓	✓	OK / NG	YES / NO
9			YES / NO						OK / NG	YES / NO
10			YES / NO						OK / NG	YES / NO
11			YES / NO						OK / NG	YES / NO
12			YES / NO						OK / NG	YES / NO

C / INFORMATION TO CUSTOMER

* Comprehensive

31 AUG 2014
DATE OF INSPECTION

NAME OF ENGINEER / SIGNATURE

ACKNOWLEDGEMENT:

DATE: 31 AUG 2014

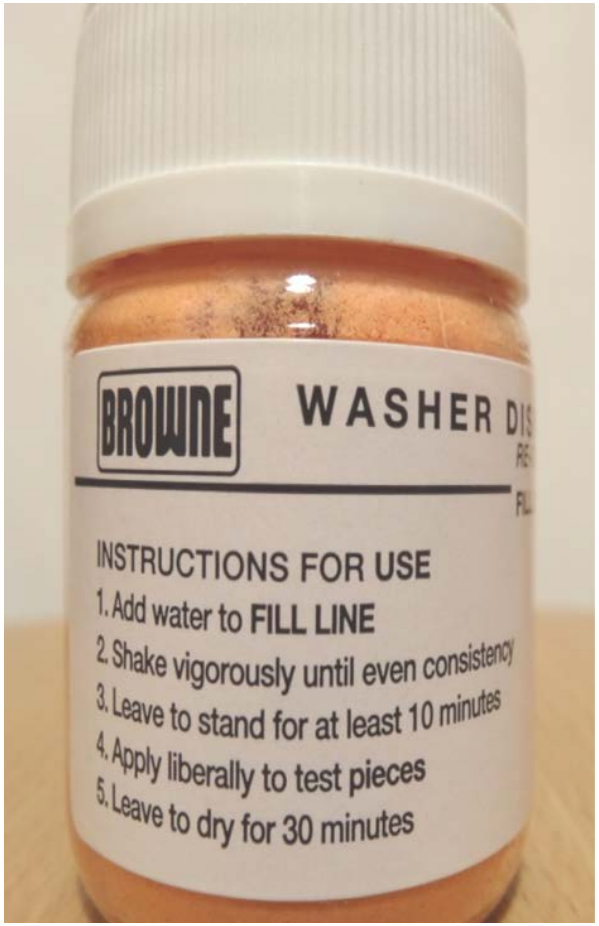
APN B1595 Kwok Mei Wang

Validation Test for Ultrasonic Cleaner – Soil Test for Reference Load (Quarterly)

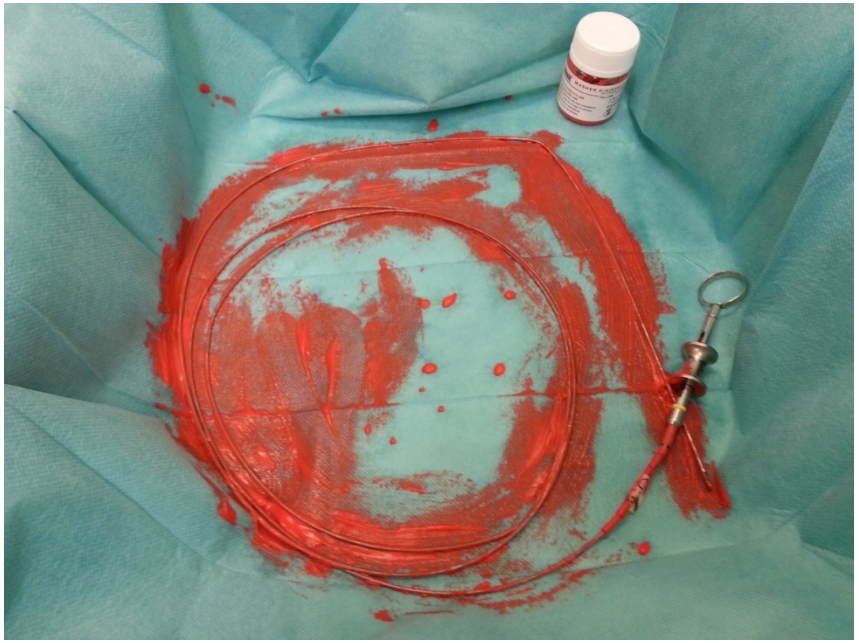
- **Aim:** To demonstrate the ability of UC to remove soiling and contamination in normal use of re-usable items
- **Frequency:** Quarterly Test & Yearly Test
- **Standard Compliance:** ISO 15883-4
- **Procedure:**

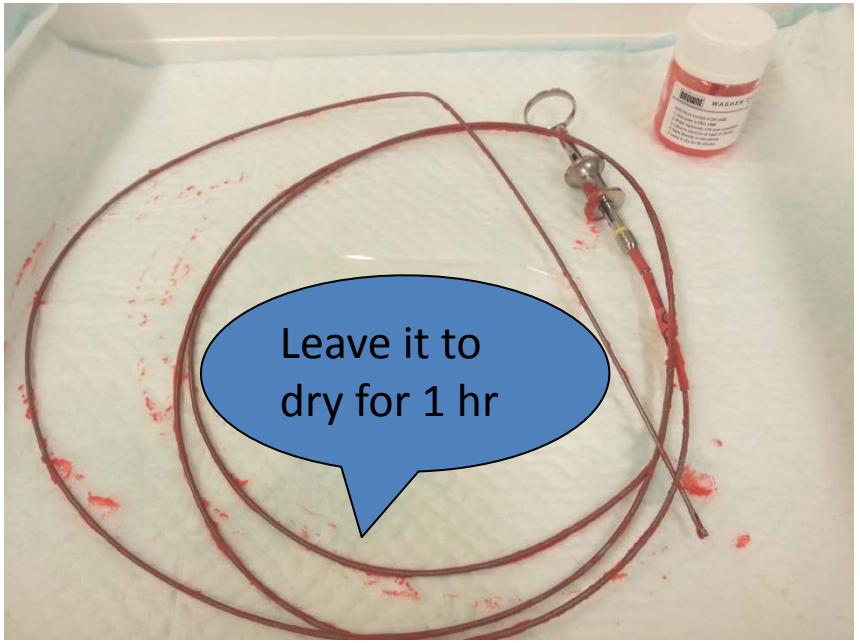
1. Prepare the soil test agent by mixing the test agent with warm water filling to “Fill line” marked on the bottle and shake vigorously until even consistency.
2. Leave the test agent for at least 10 minutes after mixing.
3. Contaminate the test load, chamber wall and load carrier with the test load and leave to dry for 30minutes.
4. Operate a normal washing cycle for the load type under testing.
5. After completion of the washing cycle, examine the test load, chamber wall and load carrier for the presence of residual test soil by visual inspection.
6. The test shall be regarded as satisfactory if it is visually clean.

Validation Test for Ultrasonic Cleaner – Soil Test for Reference Load



Validation Test for Ultrasonic Cleaner – Soil Test for Reference Load





Validation Test for Ultrasonic Cleaner – Soil Test for Reference Load

Visually Inspect
Result Reading
at 25 mins

Tuen Mun Hospital T6 EDU
Endosonic Cleaner's Cleaning Efficacy -- Soil Test for Reference Load Record
Test Frequency: Quarterly Test, Annually Test
Model: KM 7500620 S/N: 2817390 AID: 609996

	Jan 2012	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Date							12 JUL 2012			05 OCT 2012		13 DEC 2012
Soil Test Result							Pass			Pass		Pass
Inspector 's Name & Rank							KWOK MEI WANG RN			KWOK MEI WANG RN		KWOK MEI WANG RN

	Jan 2013	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Date												
Soil Test Result												
Inspector 's Name & Rank												

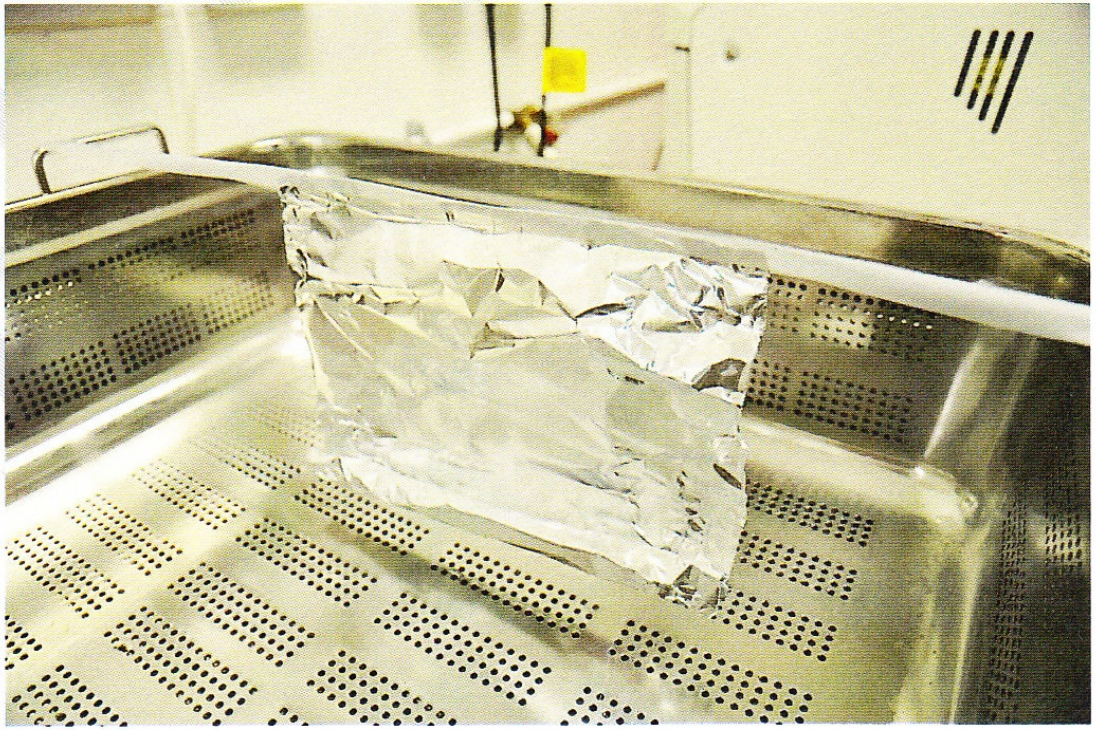
	Jan 2014	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Date												
Soil Test Result												
Inspector 's Name & Rank												

Validation Test for Ultrasonic Cleaner – Aluminium Foil Test (Monthly)

- **Aim:** To show the cleaning Test & Yearly Test
- **Frequency:** Monthly Check, Quarterly Test & Yearly Test
- **Standard Compliance:** HTM 2030
- **Equipment:**

A. Aluminum foil of nominal thickness0.05mm to 0.025mm (Sold as an aluminum foil wrap for cooking);
B. Tape
C. Stopwatch

Validation Test for Ultrasonic Cleaner – Aluminium Foil Test



Visual inspection about the erosion on the foil and compare, it with the first test result.

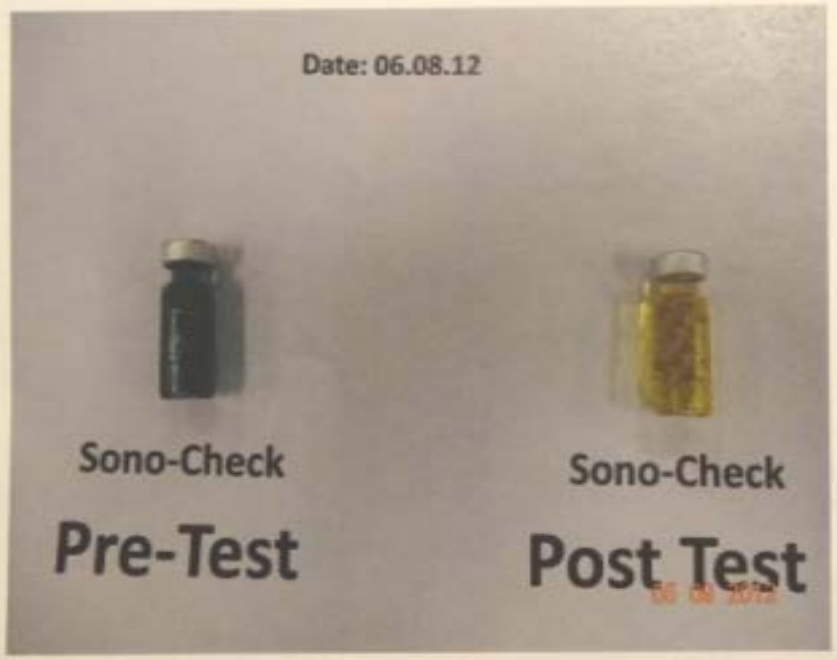
Validation Test for Ultrasonic Cleaner – Sono Test (Quarterly)

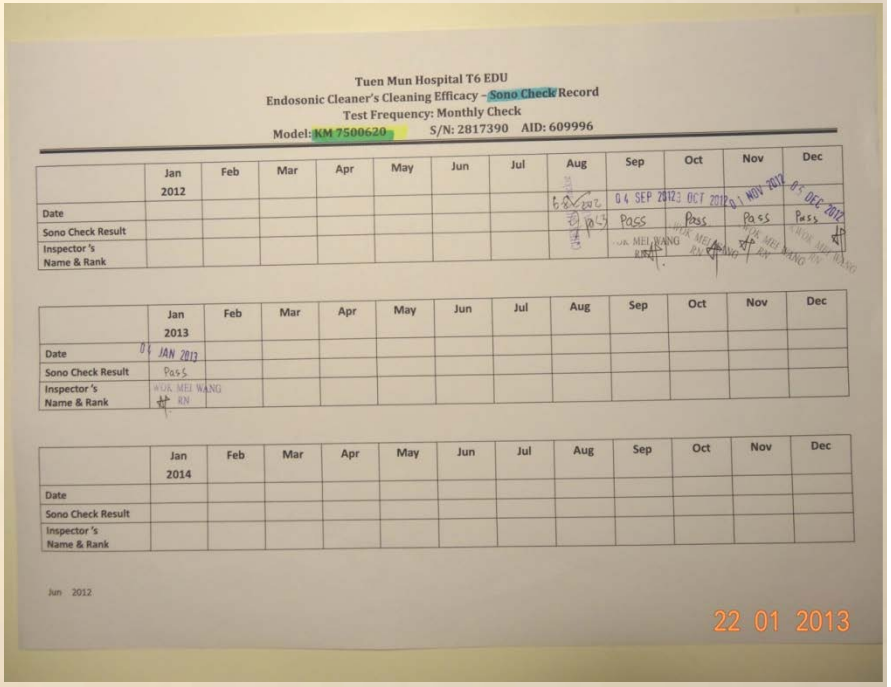
- **Aim:** To test the performance of the ultrasonic cleaner
- **Frequency:** Monthly Check**,** Quarterly Test & Yearly Test
- **Standard Compliance:** Test Indicator Supplier
- **Procedure:**

1. Prepare an empty load.
2. Place the Sono Check device into the ultrasonic basket.
3. Start operating cycle.
4. At the end of cycle, turn the cleaner off and remove the Sono Check device.
5. The test would only be considered as satisfactory when the color change from green to yellow. If there is any problem, please inform the supervisors for further action.
6. The result of Sono Check should be recorded by photo and kept record.
7. This test should be performed monthly or after major repair.

Validation Test for Ultrasonic Cleaner – Sono Test (Quarterly)

Sono Check Record for Endosonic Cleaner





Tuen Mun Hospital T6 EDU
Endosonic Cleaner's Cleaning Efficacy – Sono Check Record
Test Frequency: Monthly Check
Model: KM 7500620 S/N: 2817390 AID: 609996

	Jan 2012	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Date									04 SEP 2012	03 OCT 2012	01 NOV 2012	05 DEC 2012
Sono Check Result									Pass	Pass	Pass	Pass
Inspector 's Name & Rank									MEI WANG RN			

	Jan 2013	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Date	04 JAN 2013											
Sono Check Result	Pass											
Inspector 's Name & Rank	WOK MEI WANG RN											

	Jan 2014	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Date												
Sono Check Result												
Inspector 's Name & Rank												

Jun 2012

22 01 2013

	Combined Endoscopy Unit (CEU) TMH	Document No.:	
		Version:	2
	Monthly Functional Checking for Ultrasonic Cleaner 超音波清洗機每月成效檢測紀錄	Effective Date:	02 Sept 2013
		Next Review:	01 Aug 2015
		Page:	1

Date 檢測日期: 23 JUL 2015

Machine Model 超音波清洗機型號:	OHK Ultrasonic Cleaner
Serial Number 機身編號:	21208727
Preset Temperature 預設溫度 37℃-40℃	38 ℃
Temperature measured by thermometer 量度溫度(是否與預設溫度相若)	℃ YES 是 / NO 否
Water level 水位是否到達水位控制器	YES 是 / NO 否
Sufficient amount of detergent 清潔劑是否足夠 (10ml/L)	YES 是 / NO 否
The cleanliness of the base of tank 清洗機是否清潔及沒有沉積物	YES 是 / NO 否
Aluminum foil test 錫紙測試是否合格	Pass 及格 / Fail 不及格

此成效檢測紀錄之儲存期限爲最少五年

Rank & Signature of Responsible Staff
執行者職級及簽署:

PCA2 D2481
Cheng Wing Yi

Feed water quality test -Annually

CMA Testing
and Certification
Laboratories
廠商會檢定中心

TEST REPORT

Report No. : AS0046348(3) Date : 05 Aug 2014

Application No. : LS027448(3)

Note : 1. < denotes less than
2. mg/L denotes milligram per litre
3. APHA denotes American Public Health Association Standard Methods for the Examination of Water and Wastewater 21ed, 2005.

***** End of Report *****

Health Sector Services EMSD ULTRASONIC CLEANER INSPECTION FORM

AMS NO. 730566 REG. NO. 728966
LOCATION / DEPARTMENT EDU
DESCRIPTION Ultrasonic Cleaner
MAKE/MODEL Olympus / KM 7500620 S.N. 21208727
FILE/JOB REF. DATE 21/08/2014
INSPECTOR CENTRE
TIME TAKEN HOURS
TESTED BY:
NAME: [illegible] SIGNATURE:
POST : AEO

STATUS : [√] PASS [ ] SERVICE REQUIRED [ ] REMOVED FROM SERVICE

NOTES

TEST EQUIPMENT :

	Eqpt. ID
1. ELECTRICAL SAFETY TESTER	TMH/SAV/066
2. SOUND LEVEL METER	TMH/AUD/055

(append other possible test equipment items as appropriate)

OTHER EQUIPMENT (Please specify):

SYSTEM COMPONENTS

REG. NO.	DESCRIPTION

1	PASS	FAIL	N/A	QUALITATIVE	DESCRIPTION / COMMENTS
1.1	√			CHASSIS / HOUSING	
1.2	√			MOUNT/FASTENERS	
1.3	√			AC PLUG/RECEPTACLES	
1.4	√			LINE CORD	
1.5	√			STRAIN RELIEFS	
1.6	√			CIRCUIT BREAKER/FUSE	
1.7	√			CABLES	
1.8	√			FITTINGS/CONNECTORS	
1.9	√			CONTROLS/SWITCHES	
1.10	√			MOTOR/PUMP/FAN/COMPRESSOR	
1.11			√	BATTERY/CHARGER	
1.12	√			INDICATORS/DISPLAYS	
1.13			√	OTHER EQPT. SPECIFIC PART(S) NOTE 1	
1.14			√	ALARMS/INTERLOCKS	
(a)			√	AC POWER FAIL	
(b)			√	LOW BATTERY	
(c)			√	MECHANICAL INTERLOCK	
(d)			√	OTHER EQPT. SPECIFIC ALARM/INTERLOCK CONDITION NOTE 2	
1.15			√	AUDIBLE SIGNALS	
1.16			√	LABELING	
1.17			√	ACCESSORIES	
1.18	√			INTERNAL COMPONENTS	
1.19			√	SELF DIAGNOSTIC	

Inspection & maintainence test -Annually

Validation Test for manual Cleaning of endoscope
- Residual Proteinaceous Contamination Test (Annually)

Aim: Half yearly routine checks are designed to test if residual proteinaceous contamination present on the endoscopes after mechanical cleansing and before disinfection.

Standard compliance: According to unit guideline on reprocessing of endoscope

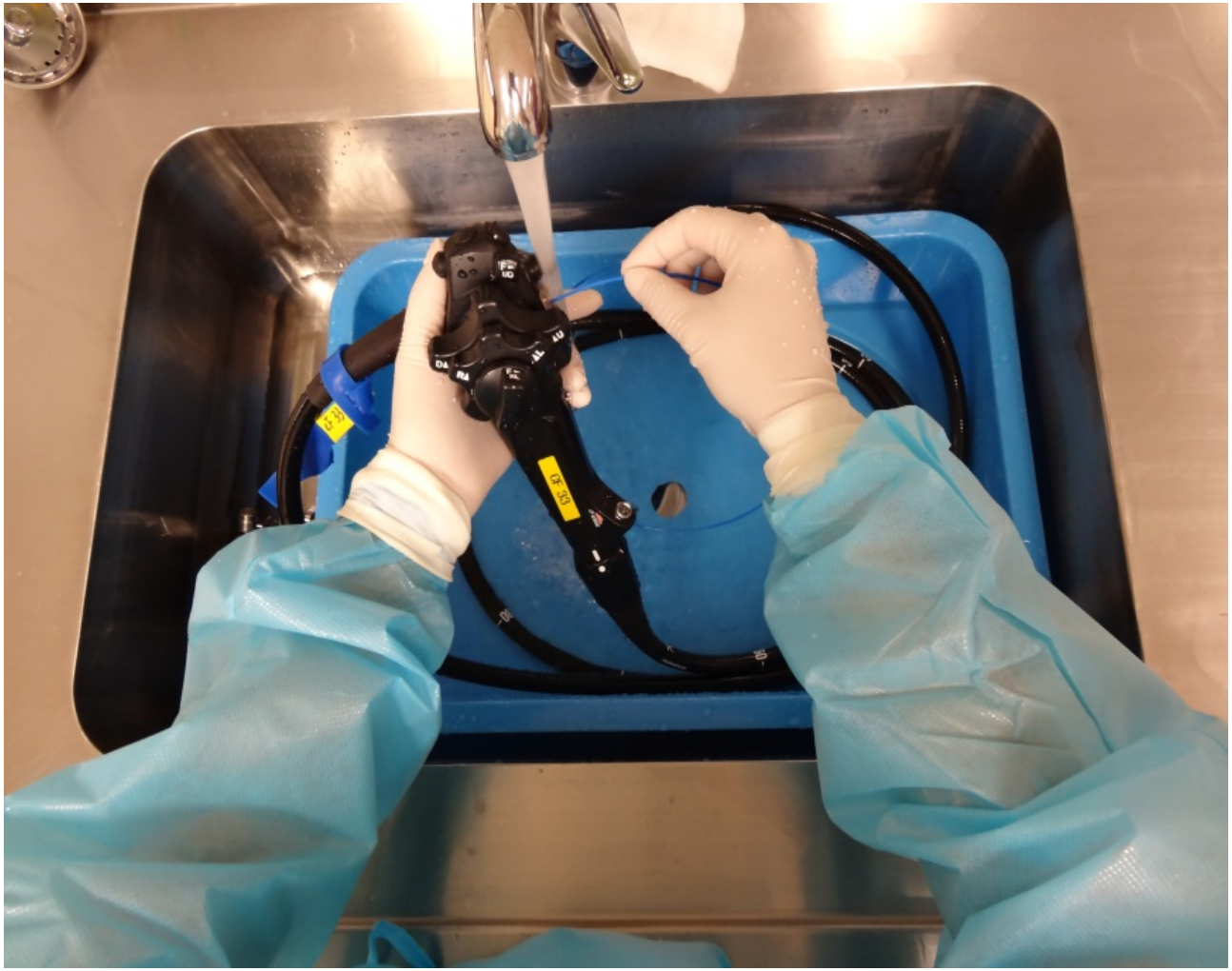
Procedure:

1. Gloves must be worn when utilizing the residual protein test to avoid cross contamination.
2. Remove the swab from the pack without touching the bulb.
   - If the object to be tested is already wet, swab the object focusing on hinges or cervices which may be contaminated.
   - If object to be test is dry, simply wet the swab with sterile water before swabbing areas of interest.
3. Unscrew the test reagent cap.
4. Swirl the swab in the brown reagent for 10 seconds.
5. Inspect the reagent for color change. Protein has been detected if the reagent has turned a shade of blue. The darker the blue intensity and the faster the rate of color change, the more protein detected. Residual protein has not been detected if the reagent remains brown. Color reference is attached for reference.
6. Record and sign the record form for Cleaning Efficacy of Endoscopes for Residual Proteinaceous Contamination.
7. For any abnormality, inform Supervisor.

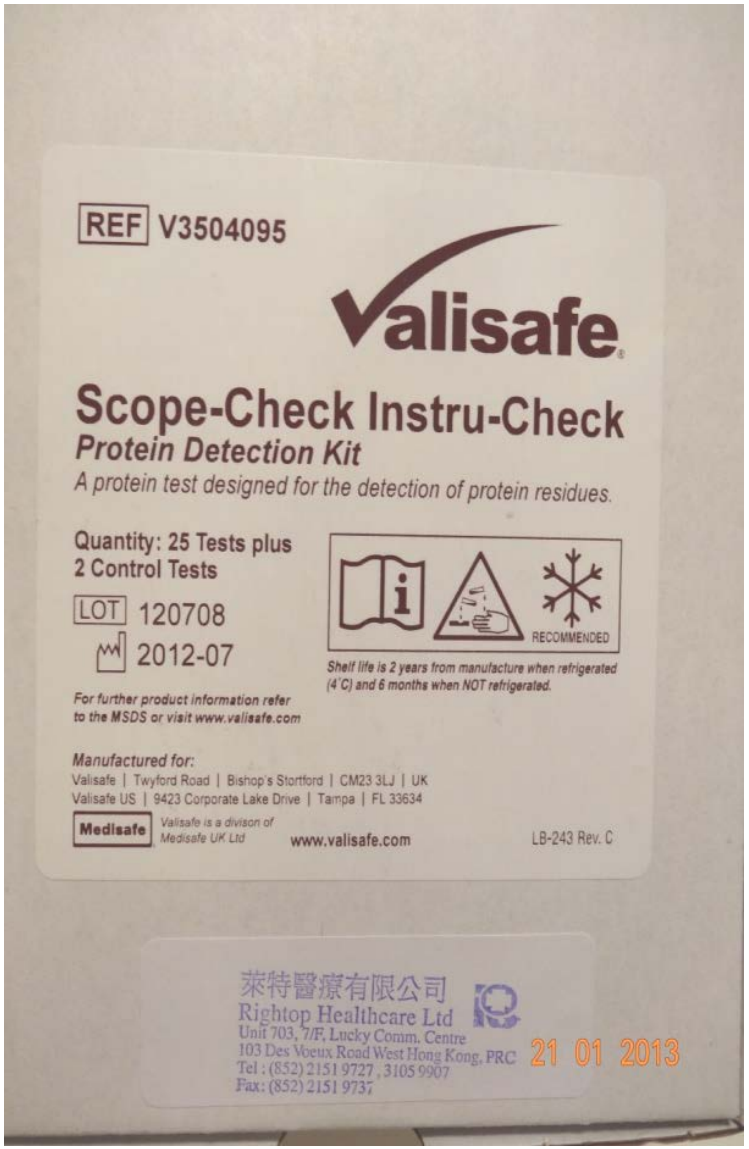
Validation Test for Endoscope

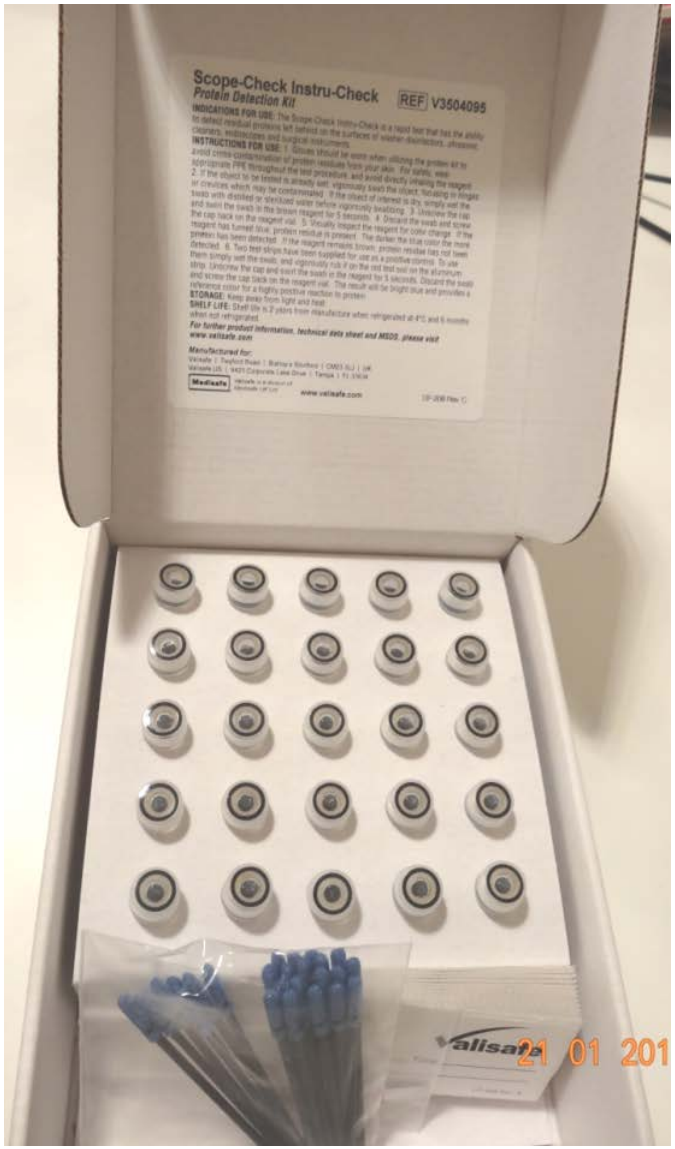
Residual proteinaceous contamination test post mechanical cleansing

Mechanical Cleansing>>> Decontaminates up to 99% of the soil



Validation Test for Endoscope Cleaning
- Residual Proteinaceous Contamination Test





PCA Reprocessing Endoscope **Competency checklist (Annually)**

Mentor:_____ Mentee:_____

Date (Period):_____

Criteria	Date Ods.	Practice 1	2	3	4	5	Date Asse.
1. The endoscope is initially cleaned to remove debris or mucus immediate after removing from patient.							
2. Leakage test of endoscope is performed under water with all movable parts disassembled.							
3. Suction channel(s) and channel opening(s) are brushed until clean.							
4. The exterior of endoscope and all movable parts are thoroughly cleaned with enzymatic detergent.							
5. The endoscope is disinfected by Automated Endoscope Reproccessor (AER) or manually according to unit guidelines.							
6. Interior and exterior of endoscope are thoroughly rinsed after disinfection.							
7. The exterior of endoscope is wiped and all channels are flushed with 70% alcohol.							
8. The endoscope is dried.							
9. The functions of the endoscope are checked.							
10. The disinfected endoscope is labeled.							
11. The disinfected endoscope is stored in purposely-built cabinet.							
12. Accurate documentation is maintained for tracking and tracing							

Comment:_____

_____

_____

Mentor sign:_____ Mentee Sign:_____

Validation Test for Scope Cabinet (Annually)

Scope Cabinet

CMA Testing and Certification Laboratories
廠商會檢定中心

TEST REPORT

Report No : AS0019101(1) Date: 23 Apr 2014

Application No : LS011303(8)

Applicant : SCHMIDTBIOMEDTECH (HK) LTD.
20/F, CHINACHEM EXCHANGE SQUARE,
1 HOI WAN STREET, QUARRY BAY

Sample Description : Five (5) sample(s) sampled by the staff of CMA Industrial Development Foundation Limited stated to be :

Sample(s)	Name	Model No.
Model 1 – Endoscope (CF16)	Colonoscope	Olympus CF Q160L
Model 2 – Endoscope (TJ06)	ERCP scope	Olympus TJF 160R
Model 3 – Endoscope (GF36)	Gastroscope	Olympus GIF 160
Model 4 – Endoscope (OT 鏡)	Cystoscope	Olympus CYF 5A
Model 5 – Endoscope (BF24)	Brochoscope	Olympus BF F260

Sample Status Upon Receipt : Refrigerated

Sampling Location : Tuen Mun Hospital, Combined Endoscopy Centre, Cleansing Room, from Medivators Rotascope, Cabinet 2

Sampling Time : 13:00

Date Received : 04 Apr 2014; 07 Apr 2014.

Test Period : 04 Apr 2014 to 15 Apr 2014.

Test Requested : Total Aerobic Microbial Count.

Test Result :

Sample(s)	Name	Test Item	Results (CFU/mL) Time Point: 0 hour	Results (CFU/mL) Time Point: 72 hours
Model 1 – Endoscope (CF16)	Colonoscope	Total Aerobic Microbial Count	$< 1.0 \times 10^0$	$< 1.0 \times 10^0$
Model 2 – Endoscope (TJ06)	ERCP scope	Total Aerobic Microbial Count	1.0×10^0	$< 1.0 \times 10^0$
Model 3 – Endoscope (GF36)	Gastroscope	Total Aerobic Microbial Count	1.0×10^0	$< 1.0 \times 10^0$
Model 4 – Endoscope (OT 鏡)	Cystoscope	Total Aerobic Microbial Count	1.0×10^0	1.3×10^1
Model 5 – Endoscope (BF24)	Brochoscope	Total Aerobic Microbial Count	$< 1.0 \times 10^0$	2.0×10^0

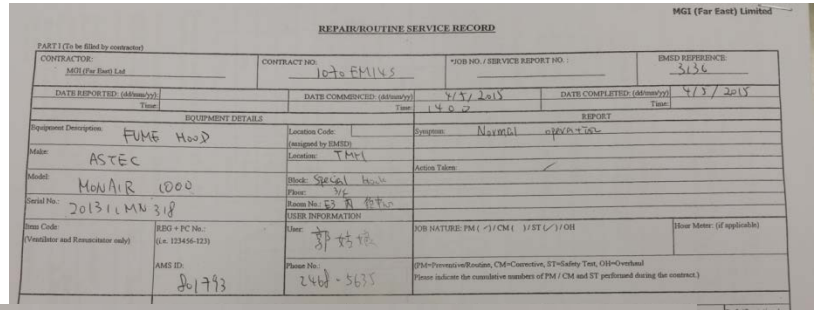
Note : 1. CFU/mL denotes colony forming unit per milliliter of sample.
2. The detection limit of above test is 1.0×10^0 CFU/mL.

***** End of Report *****

Rinse water for viable count

Annual check

Functional check →



MGI (Far East) Limited

REPAIR/ROUTINE SERVICE RECORD

PART I (To be filled by contractor)

CONTRACTOR: MGI (Far East) Ltd	CONTRACT NO.: 10 to FM145	*JOB NO. / SERVICE REPORT NO.:	EMSD REFERENCE: 3136
DATE REPORTED: (dd/mm/yy) Time:	DATE COMMENCED: (dd/mm/yy) 4/5/2015 Time: 1402		DATE COMPLETED: (dd/mm/yy) 4/5/2015 Time:

EQUIPMENT DETAILS: Equipment Description: FUME HOOD; Make: ASTEC; Model: MONAIR 1000; Serial No.: 20131CMN318; Sites Code: (Ventilator and Resuscitator only); Location Code: (assigned by EMSD); Location: TMH; Block: Specialist House; Floor: 3/F; Room No.: E3 房; USER INFORMATION: User: 房; Phone No.: 2468 - 5675; REG + PC No.: (i.e. 123456-123); AMS ID: 61793

REPORT: Symptom: Normal operation; Action Taken:

JOB NATURE: PM (✓) / CM ( ) / ST (✓) / OH; Hour Meter: (if applicable)

(PM=Preventive/Routine, CM=Corrective, ST=Safety Test, OH=Overhaul. Please indicate the cumulative numbers of PM / CM and ST performed during the contract.)

Ref. (Quotation / Invoice No.)

contractor) ESENTATIVE: Kwong Ip A. Technician (In Block Letter)

4/05/2015

assay technology

Lab Report

The Innovation & Value Leader in Occupational Hygiene Analysis

Lab Work Order: 2014080737

Customer: SMART PRACTICE HEALTHCARE LIMITED
Attention: PAUL TANG
Address: UNIT 1513 15/F FONDA INDUSTRIAL BLDG 37-39 AU PUI WAN ST FO TAN SHA TIN NEW TERRITORIES, 852 HONG KONG
Phone No.: (852) 2156 0905
Fax No.: (852) 2156 0966

Customer No.: 1809
Received Date: August 20, 2014
Date Reported: August 28, 2014
Date Report Revised: August 29, 2014
Project ID: KWC EXPOSURE MONITORING EXERCISE 2014
PO No.:

Exposure results are the average concentration for the period of time monitored. RL = Reporting Limit. ND = None Detected at or above the reporting limit. The results relate only to the items tested. Unless noted below, samples were received in acceptable condition, all applicable quality control were within method specifications, lab blanks were subtracted before a result was reported, and any customer supplied field blanks were not subtracted from sample results. The molar volume at 25 C (24.45 L/mole) was used to calculate parts per million, ppm. Air concentrations reported are based upon field sampling information provided by the customer. For assistance with the content of this report, please visit the Customer Support section of our web site at http://www.assaytech.com or contact Technical Support at 1-800-833-1258. For details of significant method modifications go to www.assaytech.com/method.html.

Lab Sample ID	Lab Code	Date Sampled	Client Sample ID	Media	Media Lot / Serial #	Analytes Requested	Quantity Found Total	RL	Units	Sample Vol. (L)	Time	Concentration Found	RL	Units
14029293	ATCH	08/13/2014	TMH E3 DECONTAMINATION	571A	6A14 - KD3457	O-PHTHALALDEHYDE	ND	0.0080	UG	0.167	27	ND	0.0687	PPM

Analyzed By: BEWNG; Analyzed On: 8/28/2014; Approved By: KTAYLOR; Approved On: 8/28/2014

Method References:

TestCode	Analytes Requested	Method Reference	Regulatory Agency	TWA Limit	STEL Limit	Exposure Units
643798A	O-PHTHALALDEHYDE	MOD OSHA 64				

Applicable OSHA PELs, ACGIH TLVs, or NIOSH RELS have been included in this lab report for guidance, but may not be sufficient for regulatory compliance. Clients should be aware that more stringent international, state, local, or organizational exposure limits may supersede the limits included with this report. Visit www.OSHA.gov/dsg/annotated-pels for detailed information on exposure limits and OSHA policies.

←OPA concentration surrounding

Smoke test →

凱康科儀有限公司

Ref. No.: MDH - 10569
Date: 4/04/15
EMSD Ref.:

SERVICE REPORT

1. Customer: TMH
2. Location: 3/F, Special Blk
3. Attn:
4. Tel:
5. Fax:
6. Type of Service: ( ) Warranty ( ) Contract ( ) Others
7. Nature of Service: ( ) Installation ( ) Preventive ( ) Corrective ( ) Demo
8. Equipment: Fume Hood — AMS / REG No.: 61793
9. Make / Model No.: Astec / Monair 1000 — Serial No.: 20131CMN318
10. Cabinet Functions: Operation of Switches: Manual — Fan: Manual; Lighting: Manual — Lux: UV Light: Manual; Warning System: Manual — Airflow Indicator: Manual; Electronic Parts: Manual — Noise Level (background): dB (overall): dB; Hour Counter: Hour(s) — Gas Controller:
11. Air velocity measurement (m/s): Downflow; Exhaust; Inflow
12. Standard(BS): ( ) Class I Inflow : 0.70-1.00m/s; ( ) Class II Downflow : 0.25-0.5m/s Inflow : minimum 0.4m/s; ( ) Fume Hood Inflow : minimum 0.3m/s; ( ) Laminar Flow Velocity: 0.35-0.55m/s
13. Symptom:
14. Comments: Preventive Maintenance; Airflow test Pass (<0.04ppm); Smoke pattern test Pass
15. Parts Used:
16. Working Hours: Labour Charge:

Acceptance of Service: Signature: (Name in Block Letter)
Service Engineer Signature: (Name in Block Letter)
For office use only: Charge invoice details: Invoice No.: Amount: Date:

凱康科儀有限公司

Ref. No.: MDH - 10557
Date: 4/04/15
EMSD Ref.:

SERVICE REPORT

1. Customer: TMH
2. Location: 3/F, Special Blk
3. Attn:
4. Tel:
5. Fax:
6. Type of Service: ( ) Warranty ( ) Contract ( ) Others
7. Nature of Service: ( ) Installation (✓) Preventive ( ) Corrective ( ) Demo
8. Equipment: Fume Hood — AMS / REG No.: 61791
9. Make / Model No.: Astec / Monair 1000 — Serial No.: 20131CMN321
10. Cabinet Functions: Operation of Switches: Manual — Fan: Manual; Lighting: Manual — Lux: UV Light: Manual; Warning System: Manual — Airflow Indicator: Manual; Electronic Parts: Manual — Noise Level (background): dB (overall): dB; Hour Counter: Hour(s) — Gas Controller:
11. Air velocity measurement (m/s): 0.78 0.80 0.74; 0.77 0.82 0.82; Downflow; Exhaust; Inflow
12. Standard(BS): ( ) Class I Inflow : 0.70-1.00m/s; ( ) Class II Downflow : 0.25-0.5m/s Inflow : minimum 0.4m/s; (✓) Fume Hood Inflow : minimum 0.3m/s; ( ) Laminar Flow Velocity: 0.35-0.55m/s
13. Symptom:
14. Comments: Preventive Maintenance; Airflow checked manual; Replaced Pre-Filter
15. Parts Used:
16. Working Hours: Labour Charge:

Acceptance of Service: Signature: (Name in Block Letter)
Service Engineer Signature: (Name in Block Letter)
For office use only: Charge invoice details: Invoice No.: Amount: Date:

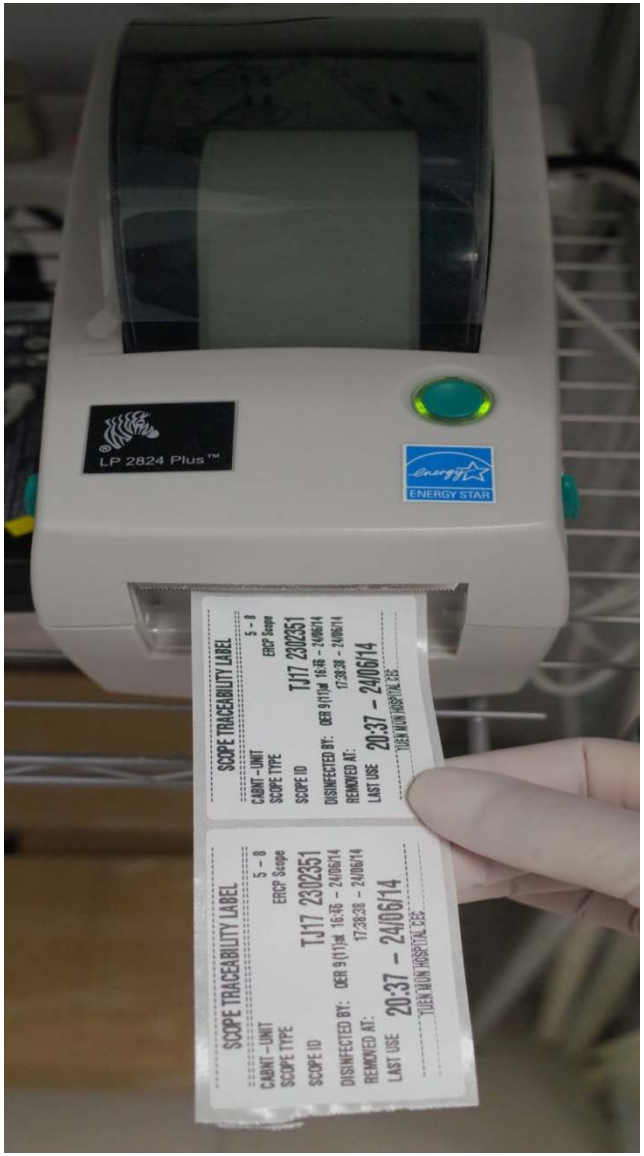
Copy

Tracking and Tracing

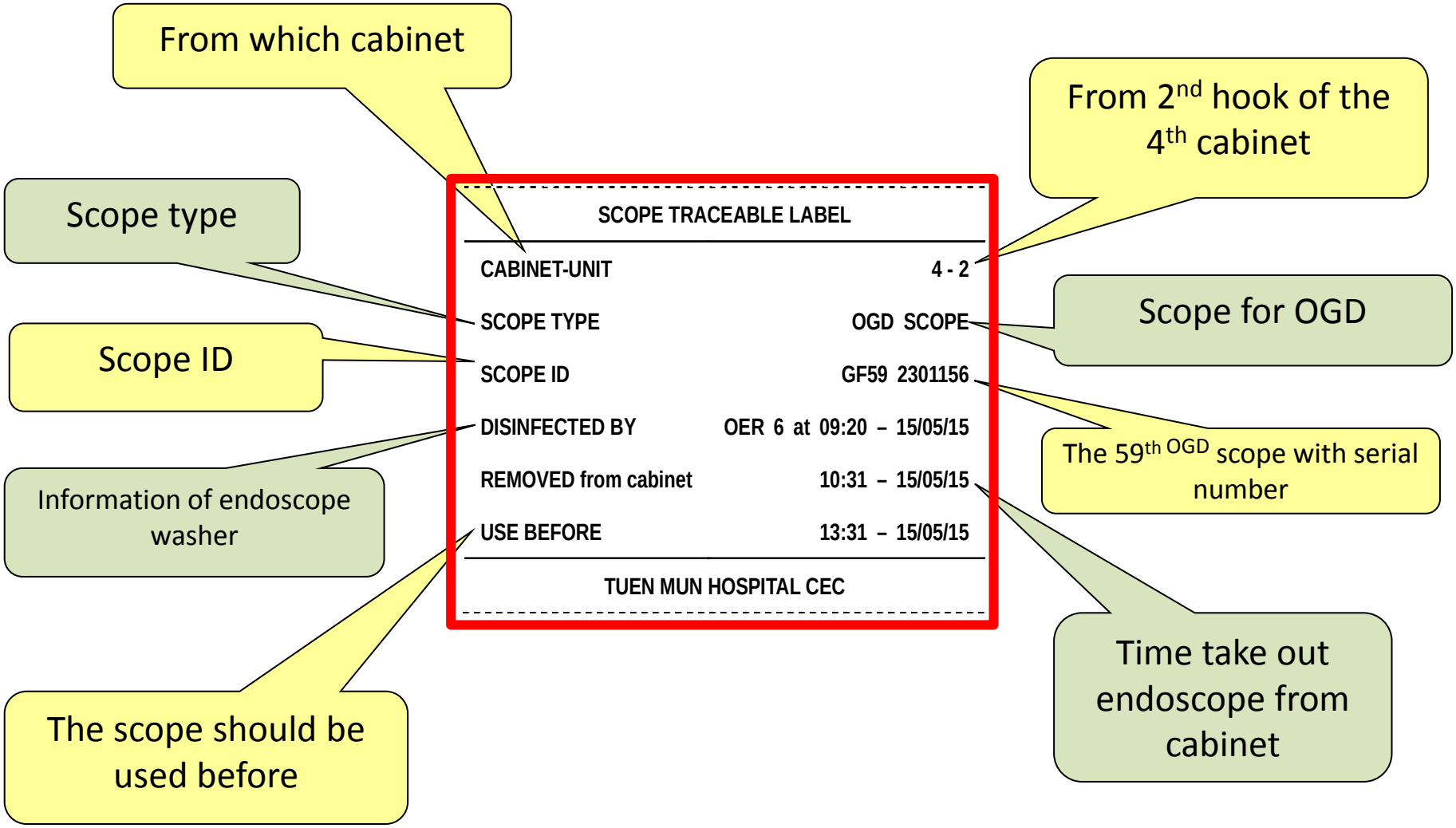
- No standardization on Tracking and tracing of endoscope and accessories

Take out scope

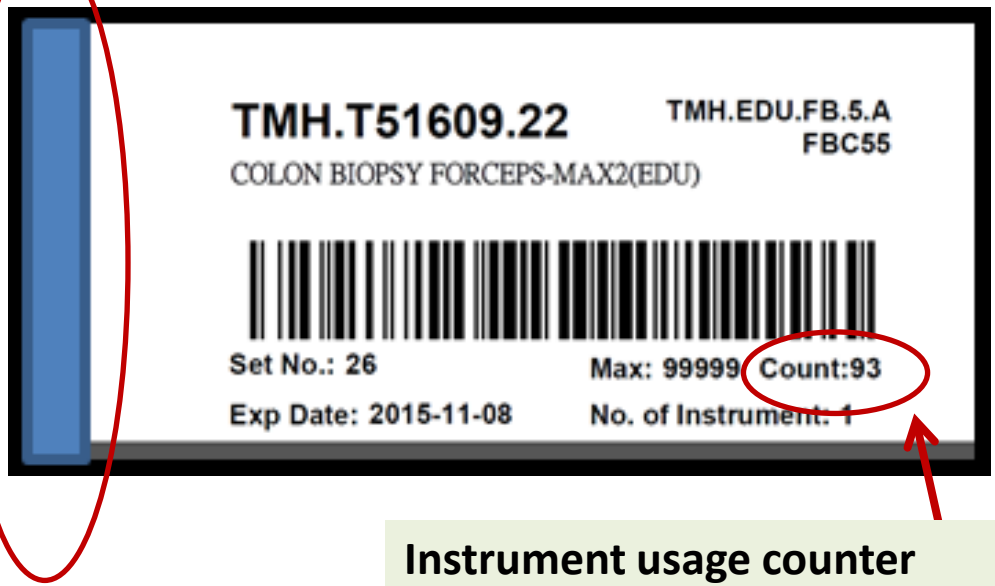
Print out Traceable labels



To endoscopy room


From which cabinet
From 2nd hook of the 4th cabinet
Scope type
Scope for OGD
Scope ID
The 59th OGD scope with serial number
Information of endoscope washer
The scope should be used before
Time take out endoscope from cabinet
SCOPE TRACEABLE LABEL
CABINET-UNIT 4 - 2
SCOPE TYPE OGD SCOPE
SCOPE ID GF59 2301156
DISINFECTED BY OER 6 at 09:20 – 15/05/15
REMOVED from cabinet 10:31 – 15/05/15
USE BEFORE 13:31 – 15/05/15
TUEN MUN HOSPITAL CEC

Tracking labels are generated by SITS Surgical Instrument Tracking System



By scanning the barcode on the plastic tag, a double-adhesive label with instrument particulates, including usage count, will be generated in each reprocessing cycle. Two labels will be supplied by CSSD for patient and ward documentation.

Instrument usage counter

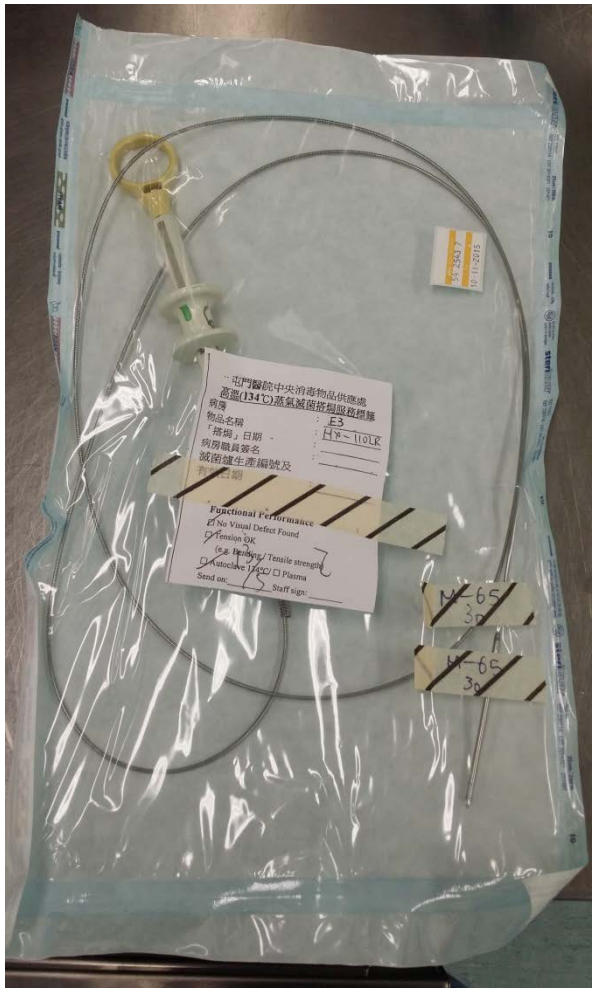
Enhancement after transition to CSSD for reprocessing:

- In the past, counting instrument usage by ward staff.
- Computer system was implemented for instrument counting by CSSD.
- This will save nurse hours from doing admin work.

A process indicator was included on the label. After sterilization, the color will be changed from blue to dark, as stated in NTWC Policy on Decontamination of Reusable Medical Device (Doc. No. NTWC-A-CS-015-V1)

A plastic tag, as individual instrument identifier, was attached at the end of each instrument as liaised with ward staff.

Past practice



New practice

Challenges

- Validation test – need resources & support

  ↑no. of endoscope & AER to cater high volume

  ICN - contact tracing in case of any outbreak

- Decontamination room spacing –

  separate clean & dirty : one way direction

- SITS - Tracking and tracing of endoscope & accessories

- Listed disinfectant – double door AER

Disinfectant Assessment Committee

In use list of antiseptic/ disinfectant/ sterilant (Updated on 21 Jan 2015)
For medical devices requiring high-level disinfection

ITEM CODE	DRUG NAME	STRENGTH	TRADE NAME	DSAC SUPPORTED PRACTICES	DATE OF SUPPORT TO USE BY DSAC	Remarks
TRIS03	CHLORINE DIOXIDE	100-125 ppm	Tristel Fuse for Instruments Disinf Soln, 100ml	Flexible Cystoscopes	16.05.2014	
Others						
APER01	APERLAN POKA-YOKE AGENT A (OR EQUIV) DISINF SOLN 5KG	Acetic acid 10-25%, Peracetic acid 5%, Hydrogen peroxide >20%	APERLAN POKA-YOKE AGENT A	For endoscope reporcessing in Getinge POKA-YOKE AER	9.3.15	**A grace period of one year for the use of Aperlan for these AER already bought** in these 3 hospitals – KWH, QEH and YCH. During this one year period till 9 March 2016, user shall have a built-in monitoring system to monitor the usage and the monitoring should be reported back to DSAC
APER02	APERLAN POKA-YOKE AGENT B (OR EQUIV) DISINF SOLN 5KG	Potassium hydroxide 4%	APERLAN POKA-YOKE AGENT B	For endoscope reporcessing in Getinge POKA-YOKE AER	9.3.15	

Biocides & Liquid Cleaners

CIDEX® OPA Solution Is The Standard For Instrument Reprocessing, Cleaning, Disinfecting

As the industry standard for instrument reprocessing, CIDEX® OPA Solution is the time-tested disinfectant you can turn to for rapid, reliable results.

- Glutaraldehyde-free (0.55% ortho-phthalaldehyde) high-level disinfecting solution. Rapid 5-minute soak time at 25°C in an automated endoscope reprocessor. Twelve-minute soak time 20°C for manual reprocessing.
- No activating or mixing needed. Minimizes exposure to fumes, odor or irritation.1
- Long-lasting efficacy allows reprocessing of more devices per gallon than with Glutaraldehyde.1,2

https://www.aspjj.com/us/product/high-level-disinfection

Acknowledgement

- All Endoscopy SAG members & co-members
- Ms Alice SHAM, KEC CGM(N) / UCH GM(N) – SAG Advisor
- Ms Cecilia YEUNG, CMC DOM(SUR) – SAG Convenor
- Ms Salina LO, TMH Deputy GM(N)/DOM(SURG)
- Mr C H KAN, NTWC SNO(ICN)
- Mr Samuel LAW, NTWC COM(CSSD)
- Dr T L QUE Dr, TMH/POH COS(PI)
- Dr K Y YAM Dr, TMH COS(NEURO);

Thank you