



*Sharing on UK hospital visit  
CSSD & Endoscopy  
cleaning unit*

*Ms. Jane Leung*

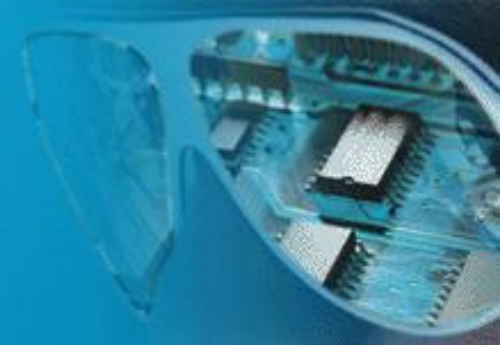
*17 Nov 2010*

# *HPA: Engineering Aspects of Infection Control*



UK- Eastwood park  
training centre

# *Topic: Decontamination & CSSD visit*



# *Definition*

Decontamination

= cleaning

+ disinfection

+ sterilization

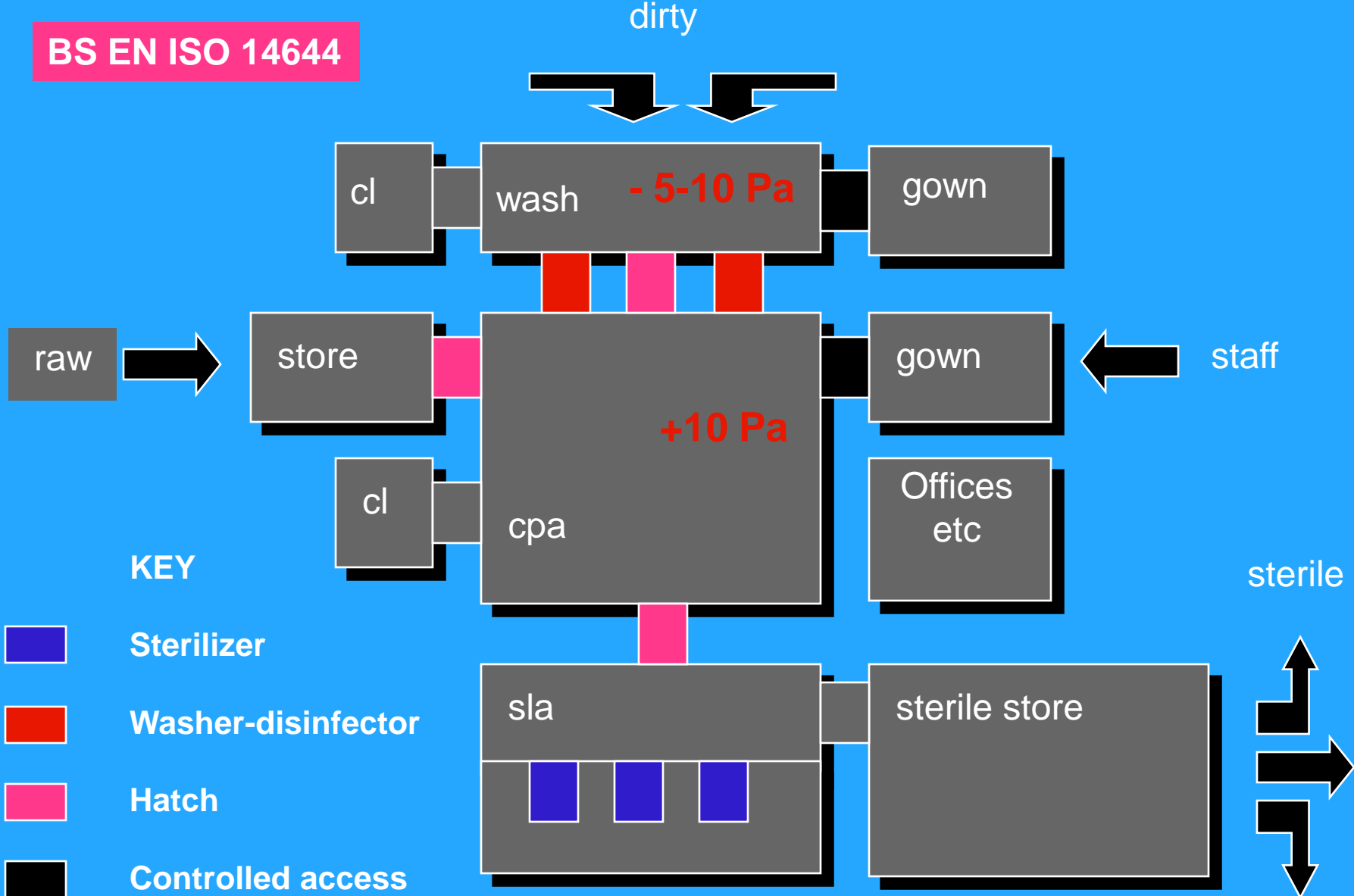
Decontamination no longer refers to cleaning only

# *Medical items: The complete process*



# The SSD – current best practice

BS EN ISO 14644



# *The washer-disinfector*

*Washer-disinfectors can be:*

**Thermal**

**Chemical**

**Ultrasonic )**

*Manual )*

*And can:*

**Clean only**

**Disinfect only**

**Clean and disinfect**



# *Classification of washer-disinfectors*

**by nature of load to be processed**

## ◆ **Clinical WD**

*-Human waste containers*

*-Surgical instruments*

*-Endoscopes*

*-Dishwashers*



































## ◆ **Laboratory WD**

*-Laboratory equipment*

*-Pharmaceutical equipment*



# *Cycle stages*

	Human-waste	Instruments	Holloware	Anaesthetic	Endoscope	Laboratory	Ultrasonic
Empty							
Leak test							
Flush	 , <35C	 , <35C	 , <35C	 , <35C		 , <35C	
Flow test							
Wash							
Rinse							
Dry							
Disinfect							
Rinse							
Cool	Optional						
Dry	Optional						

# *The washer-disinfector*

The washer/disinfector must:

- clean instruments

- disinfect instruments

- dry instruments

- clean and disinfect itself

- fully drain between cycles

- not contaminate the operator environment

- not damage the instruments

# *Time/temperature relationships*

*BS 2745:*

71 C for 3 mins

80 C for 1 min

90 C for 1 sec

*HTM 2030:*

65-70 C for 10 mins

73-78 C for 3 mins

80-85 C for 1 min

90-95 C for 12 secs

EN 15883

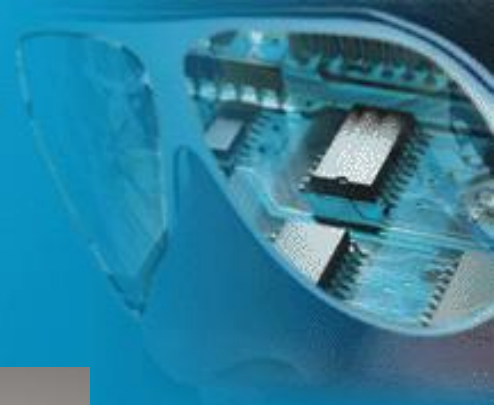
Ao of 600

# *Hospital Visit*

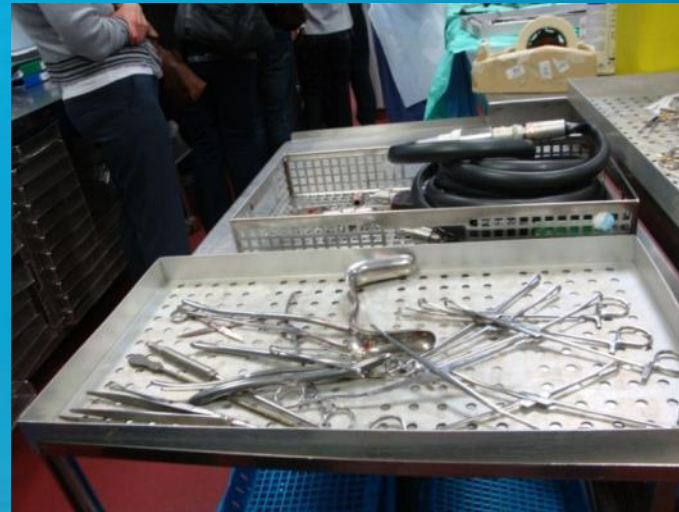


*Royal Gwent Hospital  
SSD*

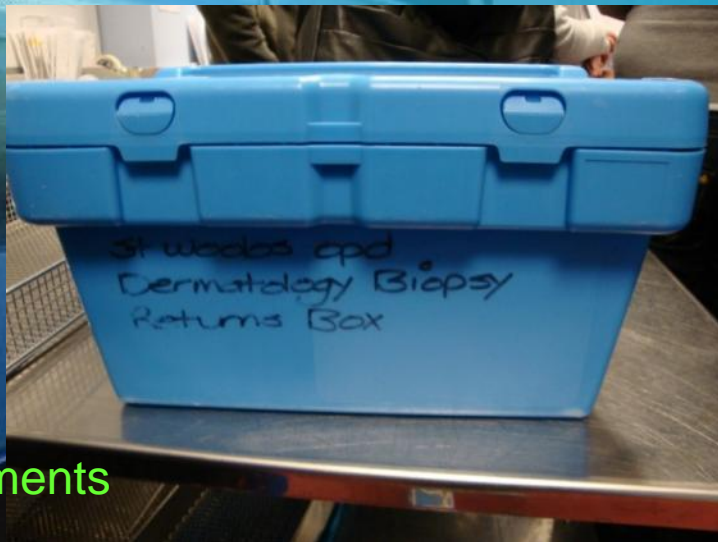
# *Cleaning area: PPE & HH facilities*



# *Cleaning area: Used instruments & equipments*



Wards / OT  
Instruments



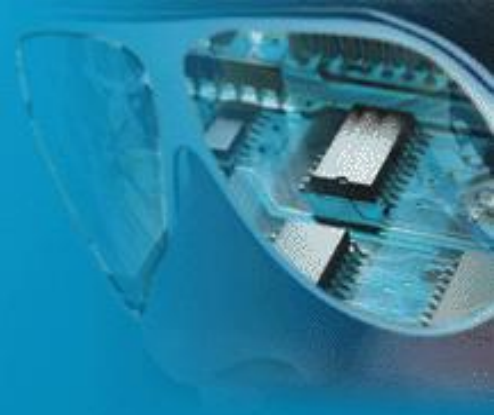
OPD  
Instruments



# *Cleaning area: Washer-disinfectors*



# *Central packing area*





# *Sterilizer loading area*



# Sterile store & items



# *Hospital visit: Chelsea & Westminster Hospital*



**Dr Berge Azadian, Director of  
Infection Prevention & Control**

**Roz Wallis (Nurse Consultant,  
Infection Control)**

# *Sterile Services Department (SSD)*



Implemented a Quality Management System ISO 13485:2003 for processing of Medical Devices Since 2004.

Expansion to accommodate Centralized Endoscope Decontamination Unit, open in 2008

# Cleaning area:



Chelsea and Westminster Hospital

Tel: 020746 84745 Fax: 020746 8002

Set No: PNE5043

TONSIL & ADENOID SET

Date: May 2010

QTY	DESCRIPTION	NO.	CHK	DATE
1	Hess's Tonsil Adenoid Forceps - Large Curve			
1	Hess's Tonsil Adenoid Forceps - Small Curve			
1	Ellsner Straight Adenoid Forceps			
1	Robert Tonsil Adenoid Forceps			
1	Large Bennett Tonsil Holding Forceps			
1	Large Tonsil Holding Forceps			
1	Medium Scissors			
1	Wilson Scissors			
1	Mohr's Tonsil Shears / Retractor			
1	Tenison's Tonsil Scissor			
1	Boggs Lugger's Retractor			
1	Amoeboid Curette & Suction Cup			
1	Amoeboid Curette			
1	Magnifying Glassing Forceps Non Toothed			
1	Magnifying Glassing Forceps Toothed			
1	Bone Hook (any length and gag sized)			
1	Spatula 3 1/2"			
1	Spatula 4"			
1	Spatula 5 1/2"			
1	Spatula 6"			
1	Washburne Spoon			
1	Probe 1/2" 1/2" and 1/4"			
1	1/2" Blunt Forceps & Lead (check if foreign to set)			

Checked and returned by: \_\_\_\_\_ Date: \_\_\_\_\_

Checked and returned by: \_\_\_\_\_ Date: \_\_\_\_\_

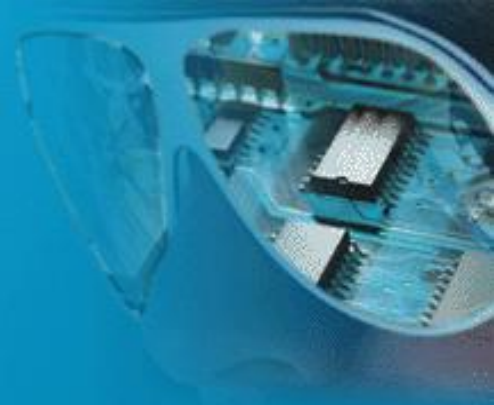


Checking: Used & non-used instruments

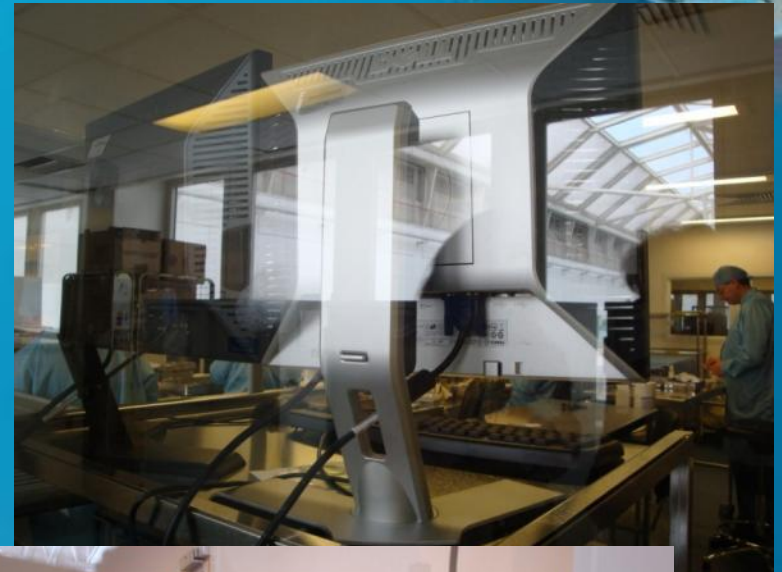
# *Cleaning area:*



# *Central packing area*

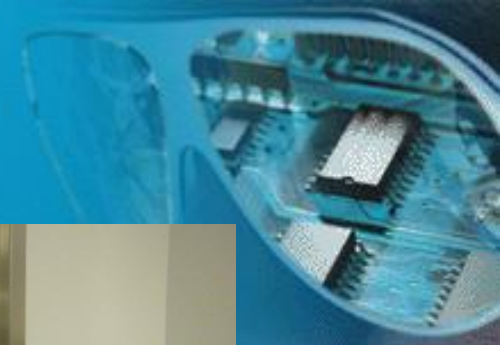


# *Central packing area*

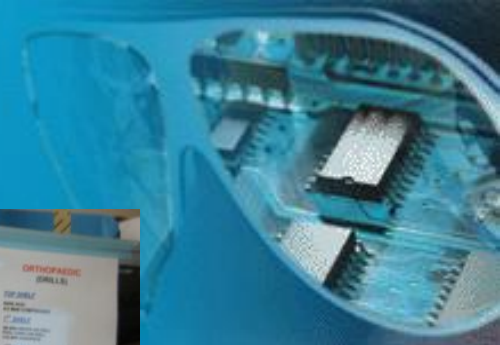




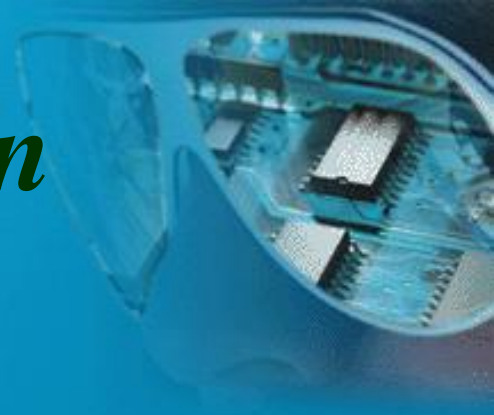
# *Sterilizer loading area*



# *Sterile store & items*

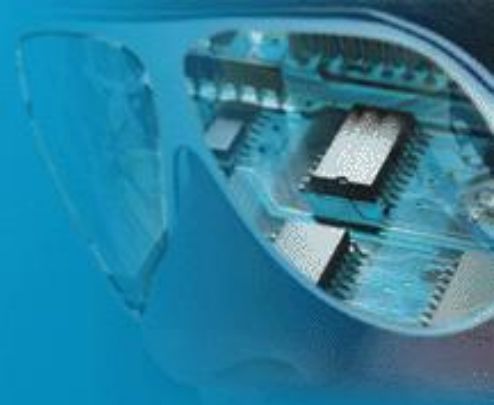


# *Endoscope Decontamination Unit*

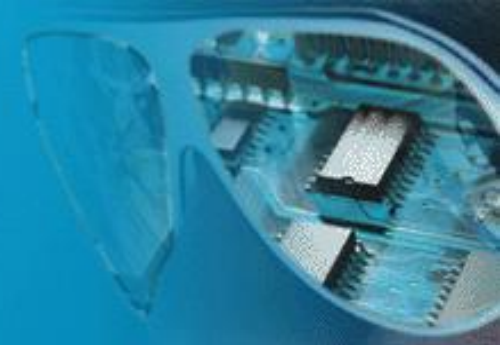


# *Used endoscopes*

## *Record in tracer system*



# Record in tracer system



Endoscope Receipt

Item Description	Item ID	Received At	Location	Status
Endoscope - Linear	594 AT 0011	11-05-10 11:11	Endoscopy Unit	Available
Bronchoscope - BF 2190	594 500107A	11-05-10 11:22	Endoscopy Unit	Available
Bronchoscope - BF 2190	594 500108	11-05-10 11:26	Endoscopy Unit	Available
Bronchoscope - BF 2190	594 500109	11-05-10 11:27	Endoscopy Unit	Available
Endoscope T.2	594 200104	11-05-10 11:32	Endoscopy Unit	Available
CF 2190	594 11003	11-05-08 12:37	Endoscopy Unit	Available
ECV 3172	594 210109	11-05-10 11:38	Endoscopy Unit	Available
ECV 4178	594 210110	11-05-10 11:39	Endoscopy Unit	Available
EG-307004R 2.4	594 010000	11-05-10 12:00	Endoscopy Unit	Available
Endoscope - ECV 1570	594 210116	11-05-10 10:58	Endoscopy Unit	Available
ECV 4178	594 210112	11-05-10 11:16	Endoscopy Unit	Available
BF 2190	594 500106	11-05-10 11:08	Endoscopy Unit	Available
EGU-D 44930 QVAC2ACOM	594 4176	11-05-10 14:47	Endoscopy Unit	Available
OLYMPUS LF1 TYPE V	594 200007 LDM1	10-05-10 14:11	Endoscopy Unit	Available
Endoscope - ECV 1570	594 210001	10-05-10 11:03	Endoscopy Unit	Available
Bronchoscope - BF 4330P	594 200005	09-05-10 15:35	Endoscopy Unit	Available
Endoscope - CF 4330P	594 200019	07-05-10 15:46	Endoscopy Unit	Available
Colonscope - CF 4330P	594 240008	08-05-10 11:37	Endoscopy Unit	Available
SMALL INTESTINE SP 0 241	594 400000 PAK1	08-05-10 09:30	Endoscopy Unit	Available
BRONCHOSCOPE PC 100E	594 100000	11-04-10 14:49	Endoscopy Unit	Available
Endoscope - CF 4020R	594 200000	11-04-10 11:10	Endoscopy Unit	Available
Bronchoscope - IT 100	594 4100 49 LDM1	11-04-10 11:08	Endoscopy Unit	Available
Endoscope - Linear	594 200004	10-04-10 11:22	Endoscopy Unit	Available
Test Scope	594 210065	10-04-10 11:13	Endoscopy Unit	Available
Colonscope - CF 2700	594 210067	10-04-10 11:13	Endoscopy Unit	Available
ULTRASOUND M4-300	594 1100 45	10-04-10 11:03	Endoscopy Unit	Available

Items Displayed: 35

Refresh Exit

# *BSG Guidelines*

Thorough manual cleaning with a compatible enzymatic detergent , including the brushing and flushing all accessible channels, must be undertaken before automatic endoscope decontamination.....

# *Manual cleaning*

- At point of use
  - air/water channel
  - External surface
  - Suction channel
- At the sink in dedicated decontamination room
- Single use brushes for cleaning
- ◆ **Ensure**
  - Access all channels (used or not used), e.g. forceps raiser channel, auxiliary water channel
  - Irrigate all channels that cannot be brush

# *Manual cleaning*

- ◆ **Follow manufacturer instructions**

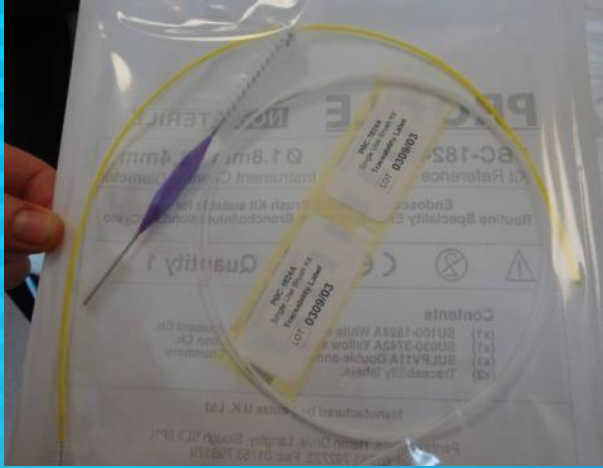
(Users should seek advice from manufacturer for most suitable method of decontamination)

- ◆ **By Trained staff**





# Manual cleaning



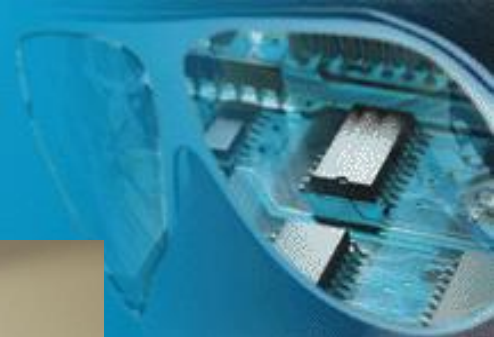
Single use brush



Leak test



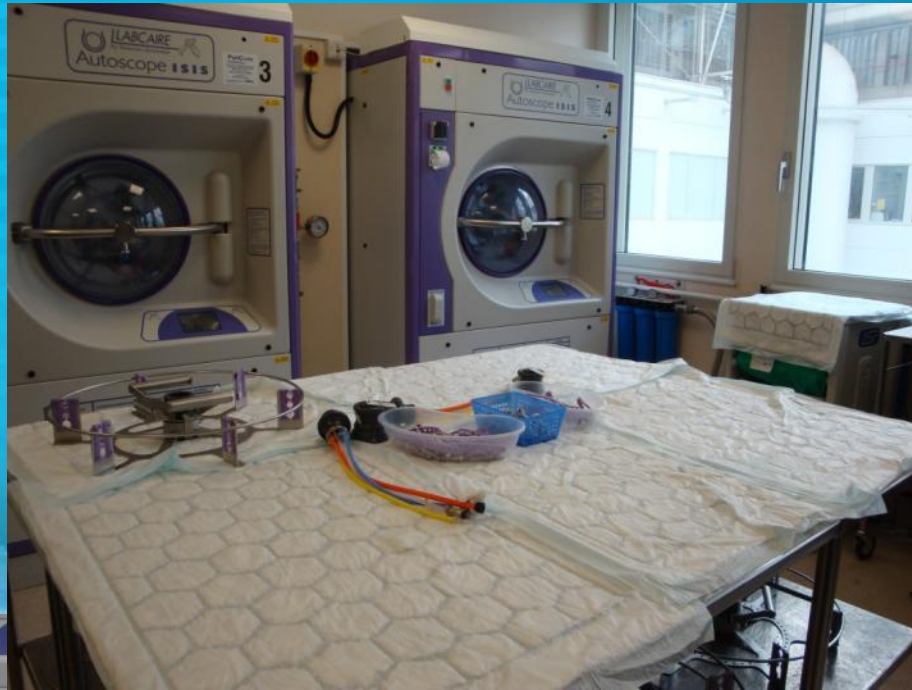
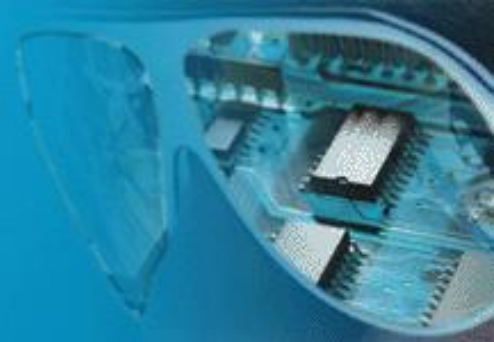
# *Endoscope WD*



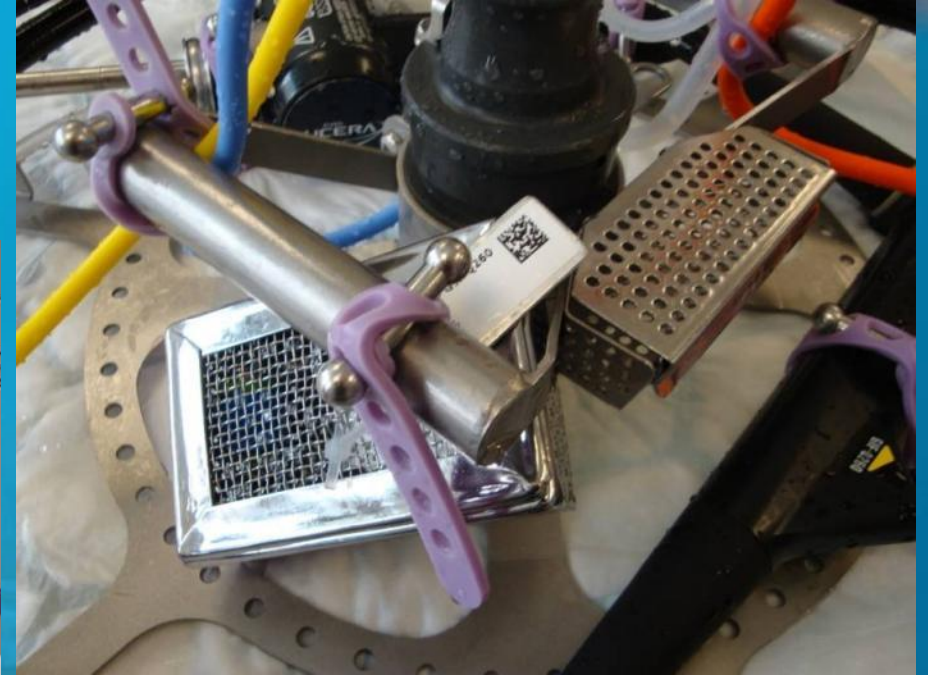
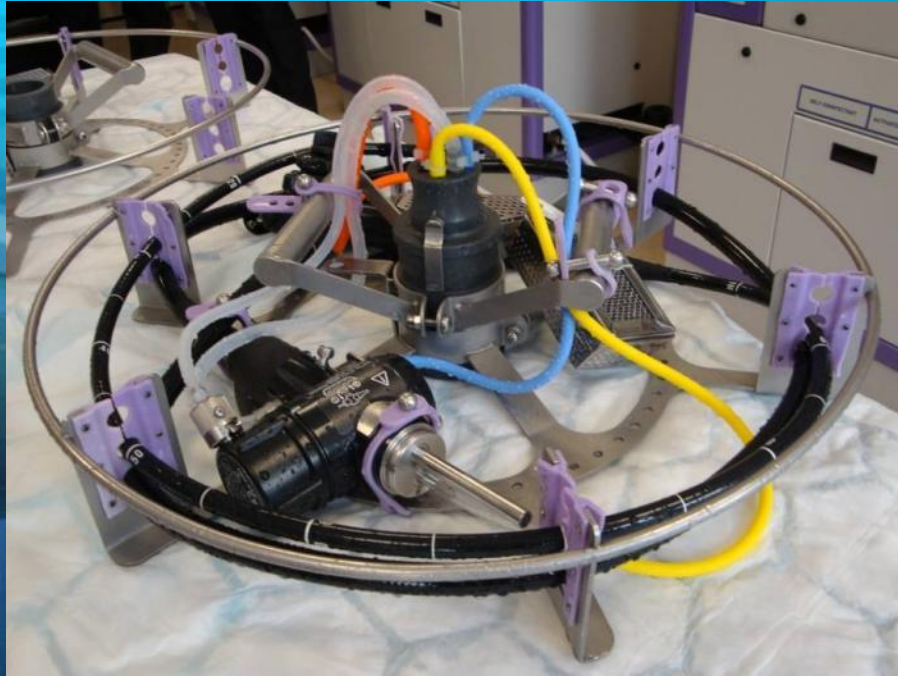
# *Endoscope WD operating cycle*

- Leak test
- Flushing <math><35\text{ }^{\circ}\text{C}</math>  
(to minimize the coagulation of protein)
- Flow test
- Washing with detergent
- Rinsing to remove detergent residues
- Drying
- Chemical disinfection
- Rinsing
- Drying

# *Load handling equipments*



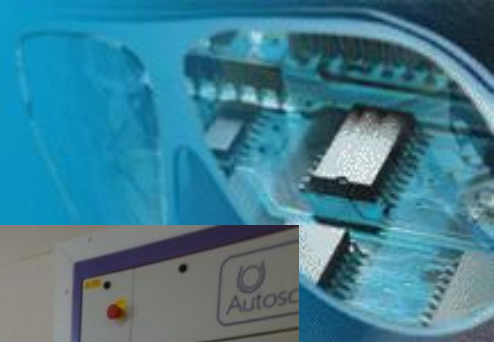
# *Endoscopes and accessories*



*Cycle starts*



# *Clean area & Store*

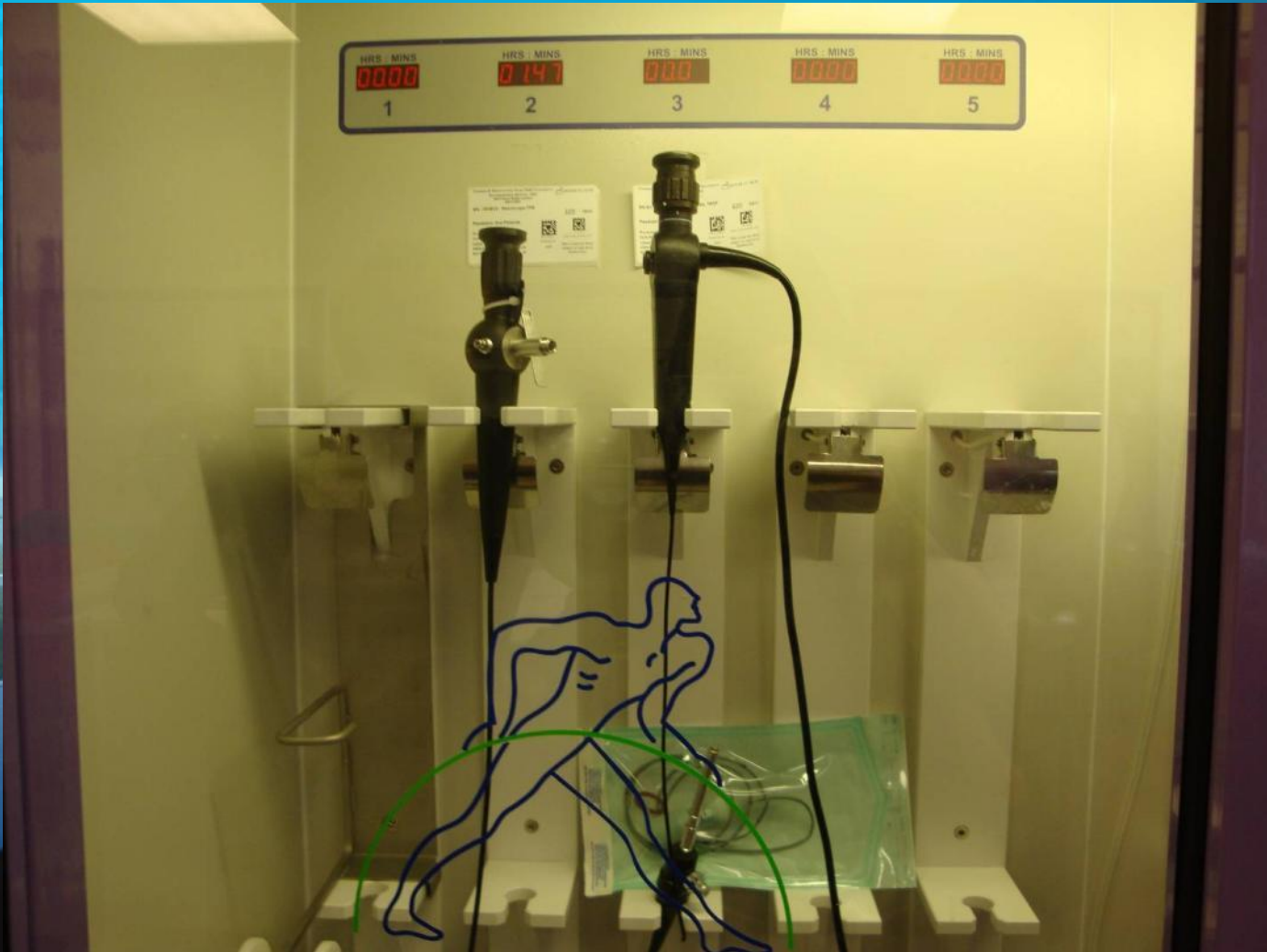
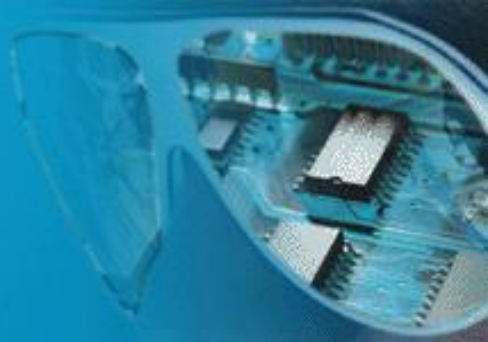


# *Drying cabinets*





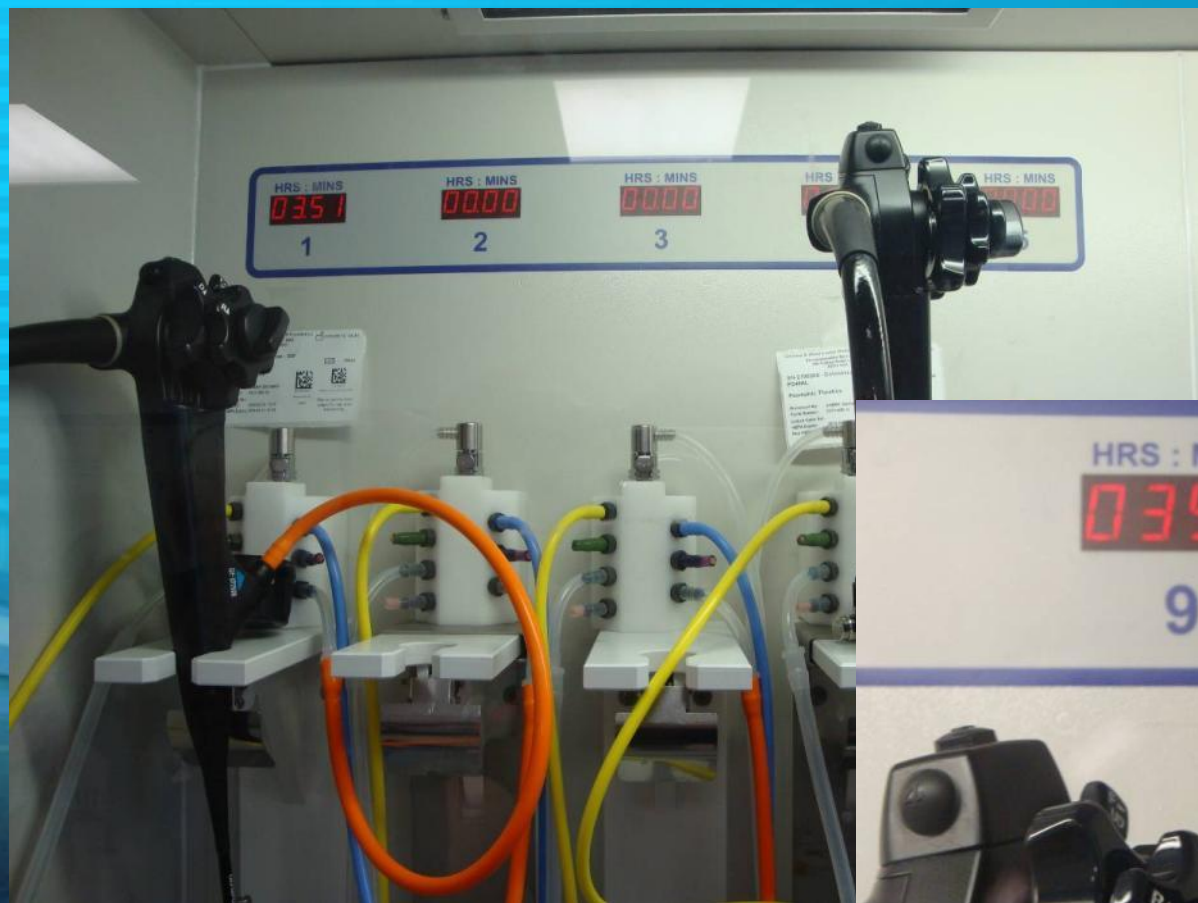
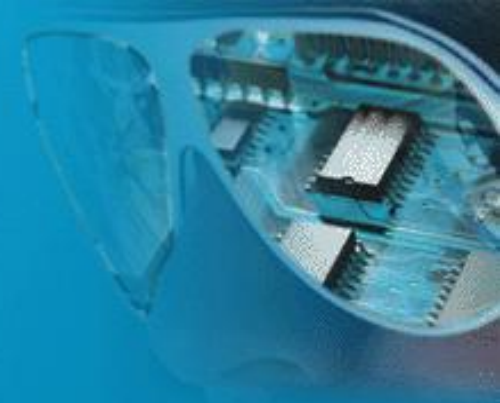
# *Different types of fibre-optic endoscopes*



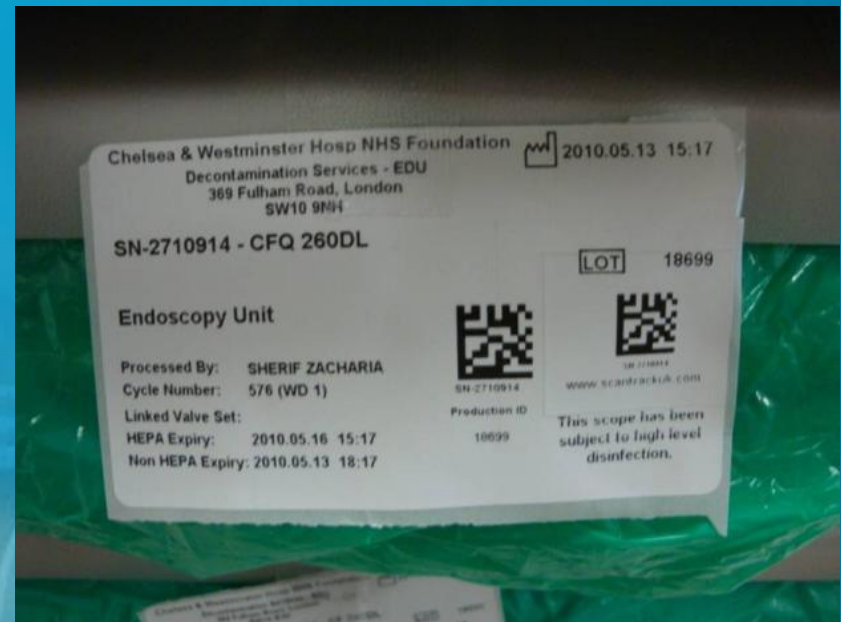
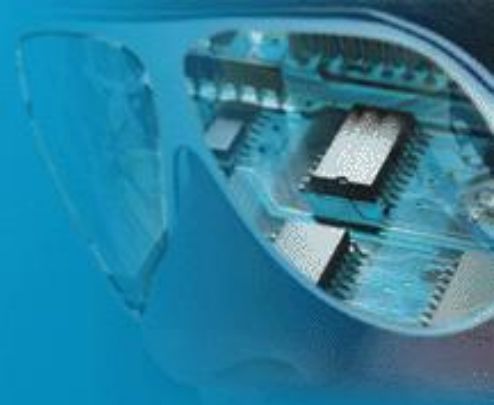
*Dry by compress air*



# *Storage & timing*

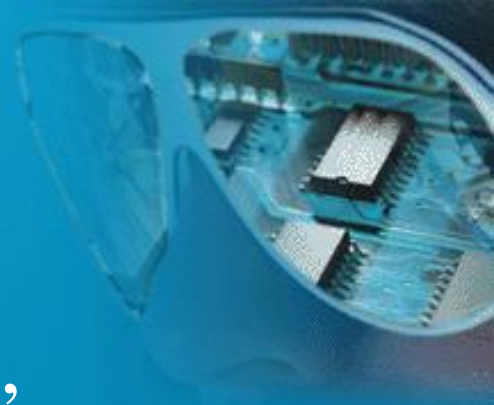


# *Endoscopes ready for use*



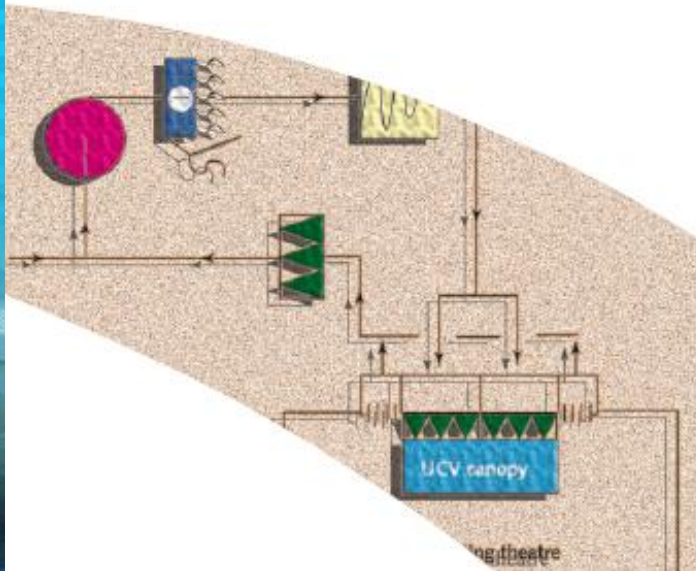
# *Traceability*

- Tracing of the decontamination cycle, personnel and patient is undertaken using manual or electronic methods
- Each endoscope has a unique identification no.
- Valves and removable parts are kept with endoscope to confirm a unique set of equipment



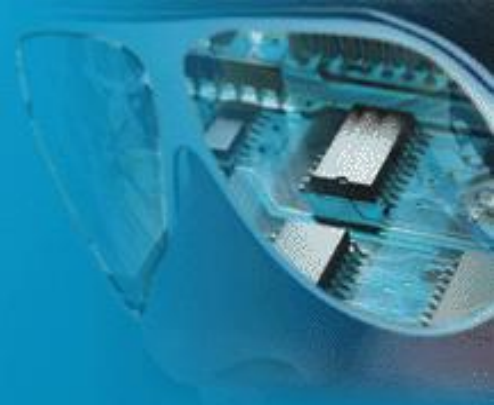
**Heating and ventilation systems**  
**Health Technical Memorandum**  
**03-01: Specialised ventilation for**  
**healthcare premises**

*Part A: Design and validation*



## *Recommended Air-change rates*

Application	Ventilation	AC/hr	Pressure (Pascals)	Supply filter	Noise (NR)	Temp (°C)	Comments (for further information see <b>Chapter 6</b> )
Endoscopy room	S	15	+ve	F7	40	18–25	
Endoscopy cleaning	E	>10	–ve	–	40	–	



***Thank you***

