

General				
Action	Yes	No	Comments/How?	Source

**Basic general hospital statistics**

Hospital type			Tribal mission hospital	8
Total number of beds			35	7
Number of operating theatres			2 1 big with 2 beds, 1 small with 1 bed	7
Number of surgeries per year			2 days p/w. 800 surgeries incl. minor	7

**CSSD general information**

Number of CSSD staff			none	7
Number of OT nurses			28, 5-6 on surgery teams	8
Number of Biomedical technicians			0	8
Who reprocesses the laparoscopic instruments			OT nurses	8

Compliance with standards is verified against:

There is record keeping of sterile reprocessing	x		none	7
There is periodic review of reprocessing performance	x		Paper based	
Product descriptions/documentation are available for all products to be sterilized		x		7
There is a procedure for new materials/instruments		x		7
Disposables are being reprocessed and reused	x			7
What types?			Vessel sealers, ports, ESU handles, clip applicators	
Number of reuses is documented		x		7
How often			Not tracked	

For instruments that can be disassembled, (manufacturer) instructions are available for disassembly

There is a written protocol for manual cleaning	x			4,7
There is a protocol for repair of instruments		x		7

Cleaning facilities in and around the OT				
Action	Yes	No	Comments/How?	Source

How often are the OT and cleaning areas cleaned?

Sinks are cleaned at the end of the day	x		Daily	7
		x		7

**Personal protection**

Sufficient personal protection devices are available such as				4,7
Gloves of different materials		x		7
Watertight aprons with long sleeves		x		7
Safety goggles		x		7
Splash screen		x		7

**Equipment in the OT**

Compressed air gun	x			7
Water gun		x		7
Hand Shower		x		7
Ultrasonic cleaner		x		3
Flash autoclave		x		8
Compressed Air		x		8
Sink where instruments are rinsed	x			

Other equipment

		2 autoclaves	8
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The disinfectant trays (for Cidex) are kept near the OT

x		In the OT	
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What sort of disinfectant tray is used?

		Plastic Cidex container	
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How often are the disinfectant trays cleaned?

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How often are the rinsing trays cleaned?

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**Description of the CSSD**

Action	Yes	No	Comments/How?	Source
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There is a CSSD

	x			8
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All surgical instruments are fully processed in the CSSD

	x			
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The CSSD is cleaned daily

				7
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Sinks are cleaned at the end of the day

				7
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There are separate rooms for dirty, clean and sterile goods

				4,7
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Transport of sterile and contaminated goods is strictly separated

				1,4,7
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The instruments are only passed through machine hatches

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There is a storage area with racks

x		Yes but open		1,4,8
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**Personal protection**

Sufficient personal protection devices are available such as

4,7

Gloves of different materials

				7
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Watertight aprons with long sleeves

				7
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Safety goggles

				7
--	--	--	--	---

Splash screen

				7
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**Dirty area equipment available in CSSD**

Water gun

	x			7
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Hand Shower

	x			7
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Sufficient materials for manual cleaning are available (brushes for external and internal cleaning)

	x			4,7
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Washer-disinfector

	x			3
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Ultrasonic cleaner

	x			3
--	---	--	--	---

Drying machine

	x			8
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Compressed air gun

	x			7
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Other equipment

				8
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How often is the ultrasonic cleaning fluid replaced?

				7
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The used cleaning agents are suitable for the washer-disinfectors

				7
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**Inspection and assembly area**

Insulation tester

	x			
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Microscope

	x			
--	---	--	--	--

Composition reference (paper or computer)

	x			
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There are composition basket sets of instruments

	x			7
--	---	--	--	---

Instrument set compositions are documented

	x			7
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Of each set a photograph is available

	x			7
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The documentation of set compositions is

Paper based

				7
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Based on electronic documents (database)

				7
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There are multiple laparoscopic instrument sets for consecutive surgeries

	x			
--	---	--	--	--

Packaging materials available

				4,7
--	--	--	--	-----

Cotton sheets

x				7
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Crepe paper  
 Non-woven sheets  
 Sterilization paper bags  
 Sterilization pouches  
 Schimmelbush drums  
 Filter drums  
 Sterilization containers  
 Heat sealer is available for sealing pouches

	x		7
	x		7
	x		7
	x		7
x			7
	x		
	x		7
	x		

**Sterilizing area**

Information is available on the chemical and physical behaviour of the items to be sterilized

Sterilisers available

- Steam steriliser (size in liters)
- ETO steriliser
- Sterrad steriliser
- Formaldehyde steriliser
- Other

The steam steriliser is:  
 The steam steriliser has a readout  
 The steam steriliser has a vacuum cycle  
 Sterilisers with toxic gasses are given time to vent

	x		7
x			
	x		
	x		
	x		
		Manual	8
	x		1
x			1

**Routine sterilizer performance testing**

How often is a Bowie Dick test carried out?

The result of the Bowie-Dick test is documented

Routine sterilization performance testing is done by

- Standard Bowie and Dick test pack (textile)
- Disposable Bowie and Dick test pack
- Chemical indicator strips
- Process challenge device such as GKE with chemical indicator
- Helix with chemical indicator
- Electronic process challenge device such as ETS (3M), EBI 16 (Ebro) or DPCD (Interster)
- Process challenge device with Biological Indicator
- If in use: ..... x per week per sterilizer

	x	Never	7
			7

	x		7
	x		7
	x		7
	x		7
	x		7
	x		7
	x		7
	x		7
			7

How often is maintenance performed on the autoclaves?

Is there record keeping of the maintenance?

		When the autoclave is broken	7
	x		7

Disinfection in Cidex trays is done in the CSSD

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# Reprocessing procedure lap equipment

## Before start of first surgery

Action	Yes	No	Comments/How?	Source
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Lap equipment is HLD'd	x		In Cidex	8
Lap equipment is sterilised		x		8

## In Surgery & Pre-cleaning

Action	Yes	No	Comments/How?	Source
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Gloves of OT nurses are changed for surgery after cleaning	x			1
After surgery, used lap instruments are stored in a soaking solution		x		4,7
What solution is this?				4,7
The transport containers are leak proof, can be cleaned well	x		Stainless bowls	4,7

## Transport to cleaning

Action	Yes	No	Comments/How?	Source
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Laparoscopic equipment is transported to CSSD		x		8
Regular surgical equipment is transported to CSSD		x		8
Where is the lap equipment moved?			The sink outside the OT	4
Equipment is kept moist			Cleaned directly after use	3,4

## Cleaning of lap equipment

Action	Yes	No	Comments/How?	Source
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**Disinfecting**

Lap equipment is disinfected before cleaning		x		4
What disinfectant is used?				4
Lap equipment is rinsed after disinfecting				4

**Removing gross soil**

Whenever possible, lap instruments are disassembled.	x			8
Hollow instruments are flushed with water using a spray gun		x	sometimes with a syringe	7
Gross soil is removed by rinsing	x		Under running tap water	7
Gross soil is removed using tools	x			4
What tools are used?			Needle for the ligasure blade gap, toothbrush	

**Automatic methods**

Equipment is ultrasonically cleaned		x		3
Lap equipment is cleaned in washer/disinfector		x		3
Lumens are connected for mechanical flow		x		4
Instruments are loaded in open position		x		4

**Manual Cleaning**

What cleaning solution is used?			Soap powder	3,4
Manufacturer instructions for the agent are followed				4
Instruments are fully disassembled	x			3,4
Cleaning solution is deep enough to submerge instruments		x	Under running water and soap powder	4
Appropriate quantity of detergent is used				4

Sufficient brushes for manual cleaning are present for external and internal cleaning)

The lumens are brushed (submerged)

The instrument tips are brushed

**Rinsing**

Instruments are rinsed

In what basin

What water is used?

**Drying**

Instruments are dried

Lumens are dried

Brushes are cleaned at the end of the day

Cleaning tools are disinfected

	x	Toothbrush and needle	
	x		4
x			4

x			3,4
		In sink under running tap water	4
		tap water	3,4

	x		4
	x		5,7

	x		4
	x		4

**Inspection**

Action	Yes	No	Comments/How?	Source
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Instruments are inspected for cleanliness

Dirty instruments are reprocessed

Instruments are lubricated. Which lubricant?

Insulation in inspected

Instruments are assembled

Instruments are being opened and spread out for functionality checks

Instrument set compositions are consulted during set assembly

Damaged instruments are removed from a set and replaced by an adequate replacement.

x		But revealed to be dirty	4,7
x		But not always	
x		With refined coconut oil, only before storage	3,4
x		Instruments with broken insulation are not used for ESU	3,4
x			4
	x		7
	x		7
	x	Only when broken	7

**Packaging and Sterilisation or HLD**

Action	Yes	No	Comments/How?	Source
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**Steam sterilisation**

How often are the lap instruments steam sterilised?

Packaging of sets and packs is done in

Cotton sheets

Crepe paper

Non-woven sheets

Sterilization paper bags

Sterilization pouches

Schimmelbush drums

Filter drums

Sterilization containers

None

Packs using reusable materials are double-wrapped

Indicator tape (autoclave tape) is used for closing the packs packaged in sheets

Indicators are used on every pack

Packs are dry after sterilization

		Never	8
			4,7
			7
			7
			7
			7
			7
			7
			7
			7
			4
			7
			4
			7

**Chemical Disinfection**

Instruments are chemically high-level disinfected

x			
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Gloves are changed when handling instruments in Disinfectant  
 What disinfectant is used?  
 Soaking times are tracked  
 How is time tracked?  
 Number of soaks is tracked  
 When is liquid discarded?  
 Date of the liquid activation is noted  
 When was the liquid last discarded?  
 Chemical indicators are present  
 Chemical indicators are used periodically  
 The lumens are filled with disinfectant  
 There is flow present in the disinfectant  
 Disinfectant is deep enough to submerge instruments  
 How are the disinfectant trays cleaned?  
 Gloves are changed before rinsing instruments  
 Instruments are rinsed  
 What type of water is used?  
 Are the lumens flushed? How?  
 How many times is the instrument rinsed  
 Water is discarded after each use

	x		
		Cidex & spirit	
	x		
		Roughly with clock on the wall	
	x	Not needed because no lap surg every day	
		after 14 days	
	x		
		New bottle opened	
	x		
	x		
	x		
	x		
	x		
	x		
x			
		Saline from bottle	
	x		
		Once	
	x		

**Drying**

How are the instruments dried?  
 How are the lumens dried?  
 What air source is used?

		Not	4
		Not	5,7
			7
x			8
		10 per chamber	8
	x		
		not seen	8
	x		
			8
x			8

**Formalin**

Formalin chambers are used  
 How many tablets are used  
 Date of tablet placement is noted  
 How long are the instruments in the chamber?  
 Time in chamber is tracked  
 Chambers are opened between surgeries  
 Instruments are stored in Formalin chambers until the next day

**Transport and storage**

Action	Yes	No	Comments/How?	Source
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In what state are the instruments stored at the end of the day?  
 Sterilised instruments are kept in storage

			4
			4,7

**Comments**

Cleaning was performed by nurse I was travelling with. Did not see local nurses clean lap instruments.

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## Sources

- 1 Expert opinion
- 2 Cidex OPA technical info
- 3 ASTM F1744
- 4 WHO Decontamination and reprocessing of medical devices for Health-care facilities
- 5 APSIC guidelines for disinfection and sterilization of instruments in health care
- 6 Guideline for Disinfection in Healthcare facilities
- 7 SVN Sterilisation assessment form
- 8 Observations in pilot study

