Evolution of Sterilization Service in a Private Hospital

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Mission Statement
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Founded as The Yeung Wo Nursing Home in 1922 with 28 beds
Commitment:
To achieve the best clinical outcome with top-notch medical professionals, advanced equipment and safe environment.

In-house Specialists: 100+
Staff Members: 2200+
Visiting Doctors: 1500+

積極向前，邁向百年
Looking Towards our Centenary. Keeping up the Forward Momentum
Service:

- > 480 beds
- > 30 specialty centres
- Comprehensive diagnostic and therapeutic services in a one-stop fashion
## Our Customers

<table>
<thead>
<tr>
<th>Main Operating Theatre</th>
<th>Day Surgery &amp; Procedure Centres 30+</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OT Room: 10 + 2</strong></td>
<td></td>
</tr>
<tr>
<td>• Monday to Saturday</td>
<td>• Monday to Saturday</td>
</tr>
<tr>
<td>• 0800 to 2200</td>
<td>• 0800-1800</td>
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<tr>
<td>• Flexible booking</td>
<td>• Flexible booking</td>
</tr>
<tr>
<td>• NO day specific surgery</td>
<td>• Require short turnaround time of instruments</td>
</tr>
<tr>
<td>• Surgeon specific instrument set</td>
<td>+ 24 Hours OPD</td>
</tr>
<tr>
<td>• Require short turnaround time of Instruments</td>
<td>2 Off-site Clinics</td>
</tr>
</tbody>
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Inpatient Departments
The CSSD

7 Days a Week
Monday to Saturday: 0700 to 2000
Sunday & PH: 0800 to 1800
History of Decontamination Processing

General instruments for inpatient wards, OT linen, part of the OT instruments, dressings for all departments

CSSD

Surgical Instrument Sets

Reprocessing instruments by using bench top sterilizers

Staff often have other tasks and responsibilities

± Satellite Disinfection!!!
Modernization of the **HKSH CSSD**

Hong Kong International Airport

1998
Modernization of the **HKSH CSSD**

- Physical separation:
  - Decontamination zone
  - Packaging & sterilization zone
  - Storage zone
- Automatic cleaning by Washer Disinfectors
- Unidirectional traffic of MD
Quality Assurance Through Hospital Accreditation Scheme

2010 --- Full Accreditation for a period of two years in 2010 for the 6th time by the Trent Accreditation Scheme UK

2009 --- First Organization Wide Survey conducted by the Australian Council on Healthcare Standards (ACHS)

2010 --- The first hospital in Hong Kong to receive the EQuIP 4 Accreditation Certificate by the ACHS
Accreditation – Driving Force for Service Excellence

- First version of CSSD Policy made reference to international evidence based guidelines (aspects on Infection Control, Risk Management & OSH......)

- Own set of Standard Operating Procedures (SOP)

- First alignment made with TSSU on standard practices on decontamination
Key Changes after Accreditation

• No more re-sterilization of unused single-use device

• Elimination of Flash Sterilization, except in an emergency situation (e.g., dropped instrument)
Journey to Centralization Began......

Accreditation

New CSSD

Centralization + Standardization

One Roof, One Rule!
Our First Centralization Project

Covered all Hospital Departments except OT

- Investment for the Centralization Project----Additional sets of instruments for turnover, transportation equipment....... 
- Logistic arrangement 
- Re-organize of CSSD workflow 
- Record keeping of instrument flow 
- Performance pledge on Turn Around Time (TAT) 
- Concept change of user departments----lost control of own instruments 

Condemned all bench-top sterilizers 
Elimination of satellite disinfection
Benefits from “Disposable”

- 2004 OT Gown
- 2006 Wrapper
- 2007 OT Drapes
- 2008 Pre-Sterile Dressings

Manpower relocation

OT Linen Dressing → Instrument Processing
Global Challenge to Decontamination Service

- Minimally invasive techniques are now adopted in surgeries of different specialties

- 30-40% of daily OT list

- Complex decontamination processing added further pressure to over-stretched TSSU
Can we take over all laparoscopic instrument sets?

**YES, we can!**

With the support of the Hospital Management, let’s start the CSSD Expansion!!
CSSD Expansion Project
Facility Enhancement

Maximization of Storage

Sliding Shelf Unit to optimise the storage capacity and to ensure “first-in, first-out” policy

Decontamination area
Advanced equipments complying with EN/ISO standard
Mission Accomplished

- CSSD achieves the centralization of ALL instrument processing for wards and clinical centres
- Takes up all MIS OT instruments
- Ensures that the dedicated team can effectively monitor the sterilization process as per the SOPs
- Ensures the standardization of decontamination process in the entire Hospital
- Enhances the infection control measures and OSH for our frontline staff
Validation Era

Validation

Commissioning
- Installation checks
- Installation tests
- Commissioning tests
- Thermometric tests
- Microbiological tests (if necessary)

Routine tests
- Daily
- Weekly
- Quarterly
- Annual re-qualification
- Revalidation Tests

Performance Qualification (PQ)
Validation Era

Done to be SEEN!

Documentation!!
Instrument Tracking & Tracing System

Manual tracking only on the sterilization load

Electronic tracking to link instrument processing journey with patient record

Good training platform for CSSD staff
Support from Infection Control

- The HKSH Infection Control Committee (ICC) was set up in 1994
- Sterilization Service was included in the Hospital Infection Control Guideline since 1996
- In charge of CSSD & TSSU are link nurses of the ICC
Infection Control Team

- Set up in 2009
- 2 Full time Clinical Microbiologists, 1 Infection Control Coordinator & 2 ICNs
- Strengthened the governance on Disinfection & Sterilization

- CSSD is the heart of the Hospital & Infection Control
- Closely work with the ICC to develop policy and monitor compliance
Training for CSSD Staff

- Sterile Processing Technician
- DGSV/SGSV Level I & II
- Project Management of UCLA
- Lean Six Sigma
- International Association of Healthcare Central Service Materiel Management (IAHCSMM)

Infection control, OSH

- Sterile Service Training---Basic & Advanced Steam Receiver Operator Course
Our Commitment

• To adapt ever changing service environment and advanced surgical technology, new sterilization measures are formulated and implemented

• Protocols and guidelines are updated timely and regularly to ensure strict compliance of proper sterilization procedures

• Quality management system is in place to closely monitor the compliance and effectiveness of related measures
Quality Assurance Through Quality Management System

Are we there Yet?

Quality Systems
Medical Devices
ISO EN 13485:2003
AS/NZ 4178:2003

Quality Manual
Policies and procedures

The Facility

Decontamination Equipment

Washer Disinfectors
ISO 15883
HTM2030 (UK)

Sterilizers
ISO 285, 17665
HTM2010 (UK)

Other Technologies
ISO 14937

Management

Training
Resources
Monitoring
Auditing
Customer Focus
Tracking & Tracing of Instruments
Record Keeping

Design
HBN13 (UK)

Environment
ISO 14644
Guidelines & Recommendations are everywhere!!!

Let’s monitor our service in a diligent and systemic way!
“More and more, infectious diseases form a serious threat to people’s health. Adequate sterile supply plays an essential role in the attempt to reduce the spreading of diseases within the health service”.


We are also required to ensure methods and procedures are in place to ensure sterilized medical devices are ‘fit for use’.
Our Role in Accreditation

• Sterilization and infection control are of paramount importance amidst the provision of quality healthcare service.

• Undoubtedly, it is one of the major areas under inspection to ensure the decontamination quality is up to international standards.

CSSD=MUST Visit Site!!
• 2014 --- HKSH has become the first hospital in HK to have received accreditation for the second time from the ACHS (EQuIP 5)
Challenge Ahead

- CSSD has reached its maximum capacity
- 3 more Hybrid ORs are being added in the near future
- Further expansion is needed to cope with the future demand, proposal of expansion is under review

Think out of the

Happy Valley
The Power of Moving Forward

Support from buddies!

The Hong Kong Sterile Services Management Association founded in 1997 provides training courses, workshops and organizes seminars & conferences for the health-care professionals.
Learn To Share
Share To Learn

Thank You

Quality in Service Excellence in Care