



# ***The Development of the Sterile Processing Profession through the years in Mexico and Latin America***

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# Background

- The SPDs existed since hospitals were first built
  - They were the union of the pharmacy, linen department and the OR
- In the 1970's and the 1980's:
  - Pharmacy, linen department and housekeeping were often consolidated in one area: "Central Supply"
  - There was not much standardization: most people learned on the job from others in the department
  - The majority of products that were being processed by CS, were now being manufactured as "disposable" and sterilized outside of the hospital
    - Central Supply and Sterilization Departments were incorporated into the "Materials Management Department" and the processing and sterilization of surgical instruments became a small section in the department

# Background<sup>1</sup>

- In the 1990's:
  - The development of new and less invasive surgical techniques
  - New materials and more complex devices
  - Necessity of low temperature sterilization methods
  - Tremendous strides in total joint and spine surgery
  - “Loaner trays”



More complexity in a department that had been relegated to the corner of the Materials Management Department

# Mexico and Latin America

- The situation was not different

Opportunity for Improvement



- What had to be done to change the situation and make the ***CSSD visible?***



- Research:
  - Improvements
  - Changes



# The Central Supply Department Situation

- Staff
- Infrastructure
- Equipment
- Industry and Manufacturers



# The Staff & the CSSD...

- It was an unknown, forgotten and unwanted department:
  - it was undervalued
- The staff that worked in the CSSD, was the one that behaved badly:
  - Place of punishment
  - Nobody wanted to work in the CSSD

# The Staff...

- Moreover, the staff was not trained to carry out the tasks:
  - Many times it was the janitor's staff who did the cleaning of the instruments
  - No PPE
  - The IFUs were unknown
- The work of the CSSD was based on the assembly of textiles and sterilization of gauze
- The cleaning and decontamination were made in the surgical areas



Photos: Courtesy of Nora Carbone, Argentina

# Infrastructure...

- Old hospitals: Located where there was space
  - A small place in a corner of the hospital
- Unplanned during the design of a new hospital
- Closed places, without ventilation, difficult access
- No division between areas (decontamination, assembly and packaging, sterilization)



1503: San Nicolas de Bari, Santo Domingo



1524: Hospital de la Concepción de Nuestra Señora (Hospital de Jesús), Mexico City, Mexico



# Equipment

- No equipment for decontamination
- In most cases, only textiles for packaging
  - Worst cases: Kraft paper
- Very old autoclaves
- Only few hospitals with low temperature sterilizers:
  - Use of HLD
- No sterilization assurance monitoring
- No preventive maintenance of autoclaves
- No preventive maintenance of the physical space



Photo: Courtesy of Nora Carbone, Argentina

# The industry and manufacturers

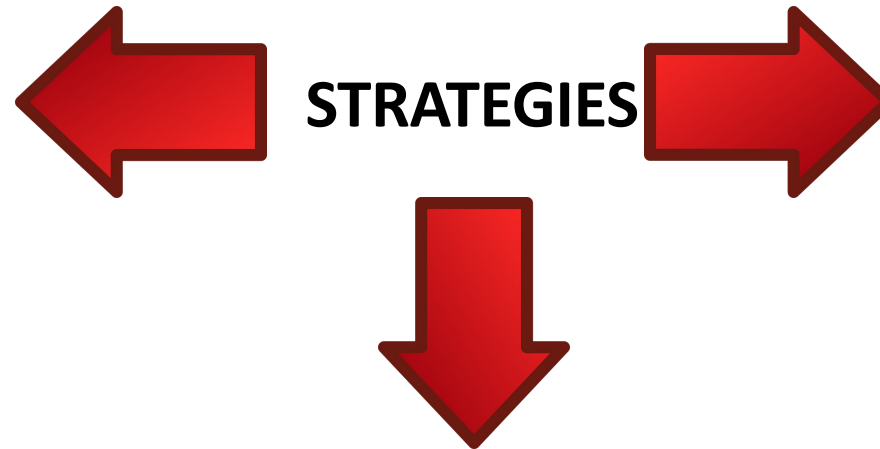
- Little or no manufacturer involvement
- Inaccurate information:
  - Liquid sterilants:  
"sterilization in 20 minutes"



# Where to start?

## Staff:

- Awareness
- Education & Training
- Certification
  - Pride of belonging



## Infrastructure and Equipment:

- Create awareness in the Executive Board

## Industry:

- Find partners who support the project



# Objectives:

- Raise standards of practice based on international standards, guidelines and norms

**Make the CSSD**

- Change the perception of the department
- Increase the staff's skills
- Create a multidisciplinary team with the involvement of other departments

**visible**

# Team work

Healthcare Facilities

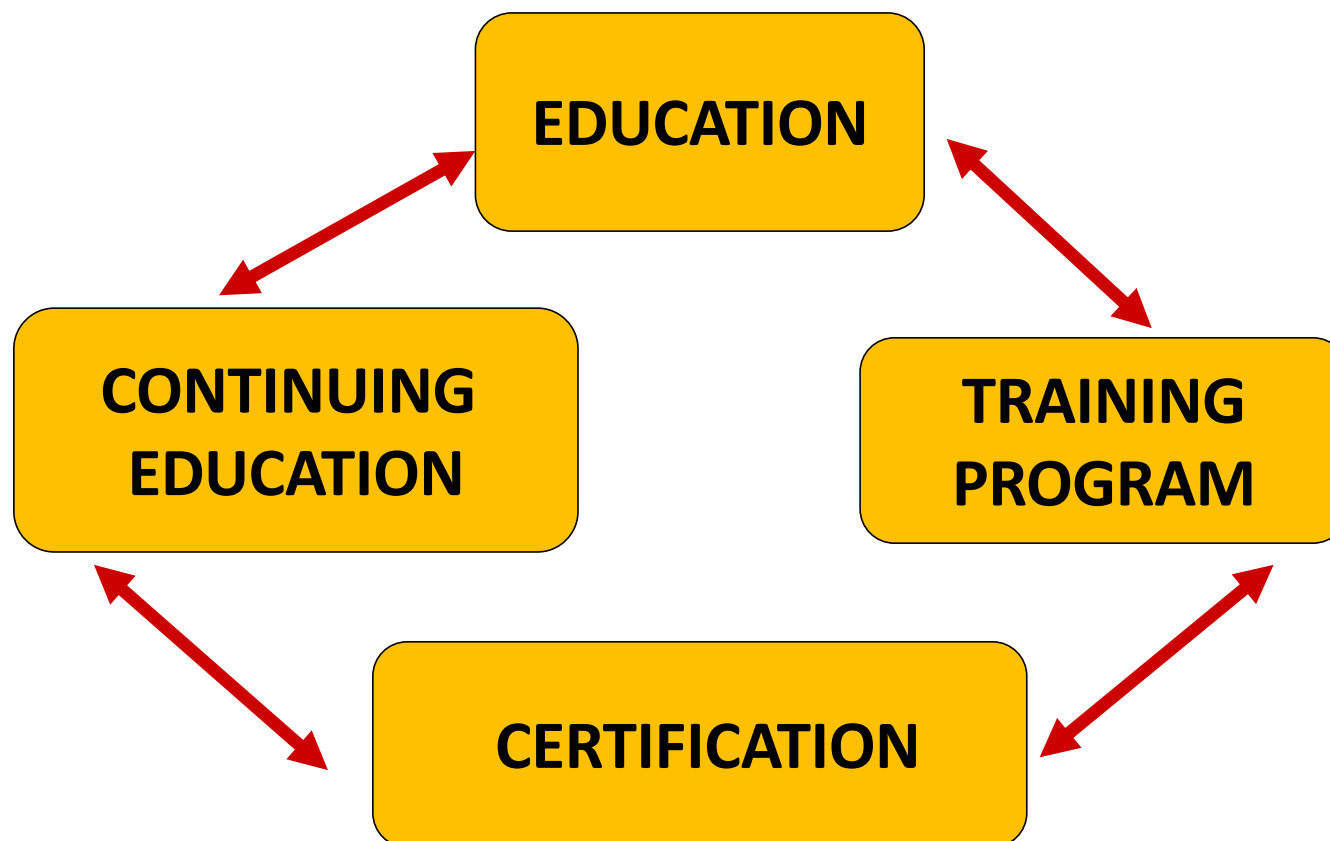
CSSD, IP, Surgical  
Staff

Professional  
Associations



Manufacturers

Accreditation  
Organization



# International Certification

- On April 26th, 2003 the first CBSPD Technician Certification Exam in Mexico was given:
  - 48 candidates
  - 82% passed
- More than 3000 exams were given since 2003
- Guatemala, Nicaragua, Costa Rica, Panama, El Salvador, Colombia, Chile, Peru, Bolivia, Argentina and Puerto Rico



# Professional Associations and Partnership with Manufacturers

- To promote good practices in the CSSD through:
  - Continuing Education
  - Training
- To promote and disseminate updated information through national and international: publications, events, conferences, etc.
- In services “custom made”
- To provide consultations to Hospitals
- Support for conferences and continuing education

# Results and achievements

- Change from:
  - Textiles to nonwovens
  - Manual cleaning to mechanical washers
  - Manual documentation to electronic softwares for traceability
- Improvements:
  - Difference between HLD and sterilization
  - Complete Sterilization Assurance Monitoring
  - Verification of the cleaning processes
  - Use of PPE
  - Low temperature sterilizers
  - Preventive maintenance programs for equipment and physical areas

# Results and achievements

- Commitment to the profession:
  - Need for Continuing Education
  - Awareness of the importance of following standards, guidelines, norms, IFUs and the regulations of each country
- Pride in working in the department
- Better facilities with separated areas and equipment:  
If not available: improvement in the processes

# Results and achievements

- Industry and manufacturers involvement
- Multidisciplinary team:
  - Individuals working in the CSSD are recognized as **professionals who are an integral part of the medical-surgical team**

*The CSSD is no longer an unknown, forgotten and unwanted place, it is valued and many want to work in the CSSD*



## Cleaning automation



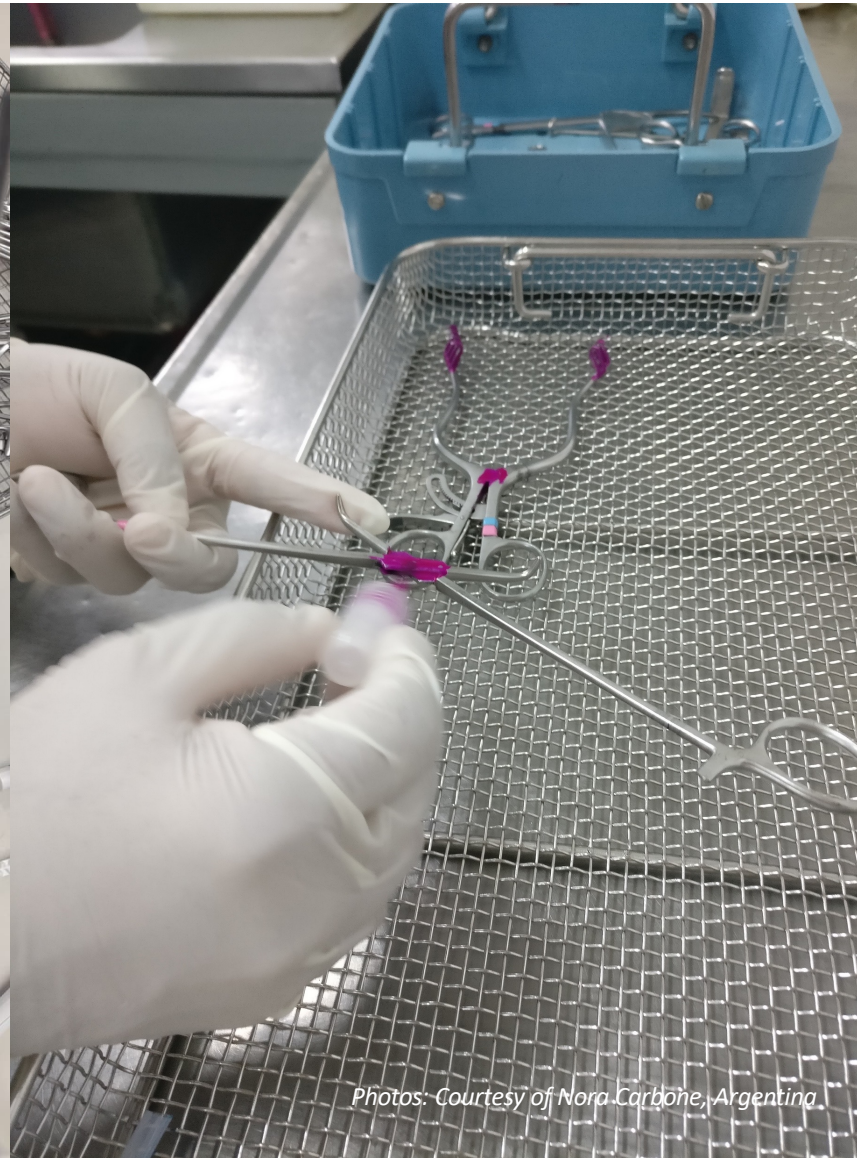
## Sets Assembly



*Photos: Courtesy of Nora Carbone, Argentina*



## Cleaning verification



Photos: Courtesy of Nora Carbone, Argentina

# Before...



*Courtesy of Carmen Caro, Puerto Rico*



# After...



*Courtesy of Carmen Caro, Puerto Rico*

# Before and after



*Courtesy of Nancy Diaz, Colombia*

# Challenges

- Reuse of single use devices:
  - Work with the manufacturers of SUD to find a way win-win:
    - Economic
    - Environmental concerns
- Emphasize the use of IFUs for device processing

# The future...

- CSSD will continue to become a more regulated and studied department:
  - Evolving standards and evolving products
- Importance of following standards, guidelines and IFUs:
  - From the minimum requirements to the “State of the Art”
- Working on required certifications
  - Better educational programs for SP personnel
- Expanding automation and increasing the use of Artificial Intelligence to improve device processing and information exchange among CSSD, inventory management and surgery

# Conclusions

- In the last 25 years there has been a renewed focus on the ***Sterile Processing Department*** and its role in processing
- The pandemic reinforced the essential contributions and the important role played by the CSSD within healthcare organizations
- Without the dedication of these professionals to cleaning, decontaminating, disinfecting, and sterilizing devices and instruments used in the OR, it would be impossible to provide infection-free patient care.

**Sterile  
Processing  
matters!!!**



**Thank you!**

**Danke  
!**

**Merci!**

**¡Gracias!  
s!**

**ありがとう**

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- Photos courtesy of Carmen Caro (Puerto Rico) and Nora Carbone (Argentina)