



## Technological advancement in -

Improving efficiency of Operation Room & Central Sterile Supply Department

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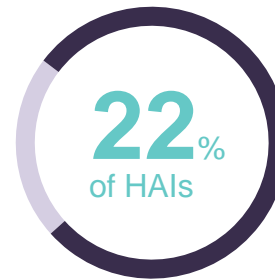
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# Healthcare-Associated Infection (HAIs)

An infection acquired in hospital by a patient who was admitted for a reason other than that infection

According to WHO, of every 100 hospitalized patients at any given time, 7 in developed and 15 in developing countries will acquire at least one HAI

1. Surgical Site Infections (SSIs)
2. Catheter-Associated Urinary Tract Infections (CAUTIs)
3. Ventilator-Associated Pneumonia (VAP)
4. Central Line-Associated Bloodstream Infections (CLABSIs)



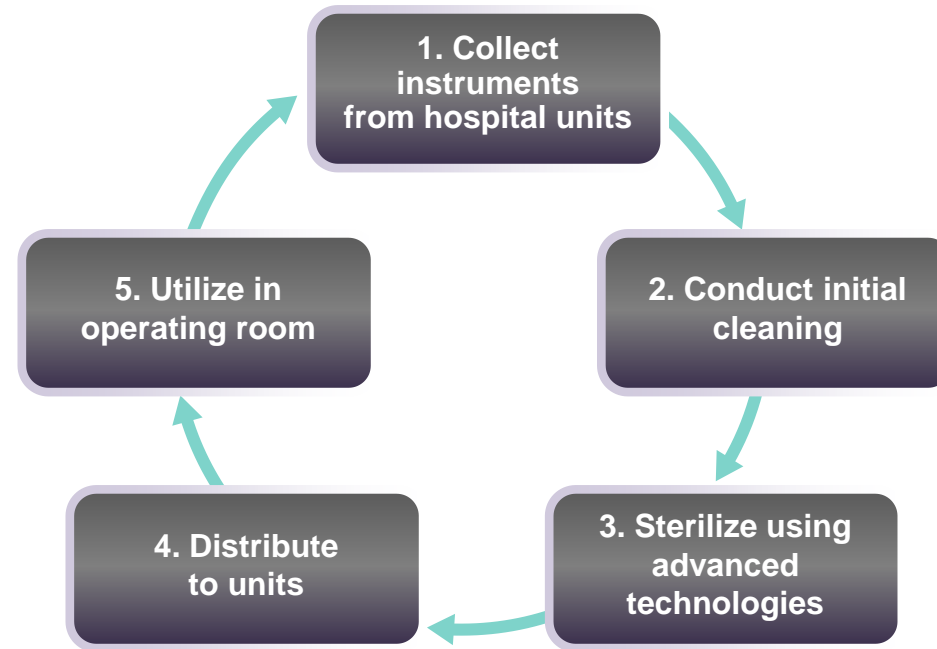
## Improper cleaning and sterilization

– the destruction of all vegetative bacteria, fungi, viruses & protozoan and all bacterial spores

12. Improperly sterilized or high-level disinfected equipment. The Joint Commission, Division of Healthcare Improvement. May 2014; 13. Multistate Point-Prevalence Survey of Health Care-Associated Infections. The New England Journal of Medicine. 370; 13. 2014; 14. Frost & Sullivan. Third Party Sterilization Services for Care Providers in the US and Western Europe, Forecast to 2022; 15. Healthcare-Associated Infections. Healthy People 2020. 2017.

# CSSD performs a critical role in the hospital

- CSSD supports revenue-generating hospital units through efficient sterilization and redistribution<sup>21</sup>
- Deviating from CSSD best practices can lead to infection<sup>22</sup>
- Advancement in technology can help CSSD achieve hospital goals



**CSSD reach is throughout the hospital, touching most of your patients**

21. Infection Control Today. The CSSD's Supportive Role in Hospital Infection Control. April 27, 2010; 22. Percin, Duygu. Sterilization practices and hospital infections: Is there a relationship? International Journal of Antisepsis Disinfection Sterilization. 2016.

# Can we disrupt the CSSD using technology?

Can you save on repair costs of instruments?

Can you save on replacement costs of instruments?

Can you save power and water costs?

Can a CSSD be integrated with the Hospital IT system?

Can the CSSD provide audit ready data?

Can the CSSD become a revenue center?

# Advancement in Technology - can help save costs



**Repair Cost**

**58% reduction in risk of damage to instruments<sup>23</sup>**



**Replacement Cost**

**52% decrease in instrument replacement rate<sup>24</sup>**



**Water Cost**

**≈190,000 liters / year in water consumption savings<sup>25</sup>**



**Energy Cost**

**≈68% decrease in energy consumption<sup>25</sup>**

23. An economic analysis of the benefits of sterilizing medical instruments in low-temperature systems instead of steam. American Journal of Infection Control. 2017

24. A STELLAR study: steam reprocessing of reusable laryngoscopes and the potential extension of laryngoscope lifetimes through a STERRAD® systems alternative. Irvine, CA: Advanced Sterilization Products; 2016.

25. Assessment of operating costs due to energy and water use during terminal sterilization with STERRAD® systems compared to a steam sterilizer. Irvine, CA: Advanced Sterilization Products; 2016.

26. Schafer B. Decreased number of repairs of rigid scopes as a result of low temperature sterilization with H<sub>2</sub>O<sub>2</sub> gas plasma. A field report from the Barmherzige Bruder Hospital in Trier, Germany. Central Serv 2009;17:194-6.

27. Skogas J, Marvik R. Measures taken to reduce damage and repair costs of rigid endoscopes during their handling and processing in surgical practice. Minimally Invasive Ther Allied Technol 2003;12:76-81.

# Advancement in Technology - can enhance compliance



**Audit Ready - Unprecedented level of interconnectivity that facilitates productivity and enhances compliance\***

**Enhanced compliance, easily integrates with instrument tracking and hospital network**

**Automated and immediate communication of system status changes helps standardize process**

**Seamless collection of vital reprocessing information, reducing risk of human error**

**Other benefits – Reduced inventory, Reduced turnaround time leading to increase in OT efficiency and most importantly validated sterilized instruments every load**

ASP ACCESS™ Technology, STERRAD® Systems with ALLClear™ Technology, and the STERRAD VELOCITY™ Biological Indicator System have features that may enhance compliance, including BI reminders per hospital policy, and on-screen reinforcement of user training.

# Advancement in Technology - CSSD be a revenue center ?

Case Study: 800 bed Indian multi specialty hospital in a metro, with 16 OTs and ~50 surgeries / day. Having Advanced Sterilization Technology for 2.5 years running 8 cycles / day



Categorized load into 6 types, identified costs to sterilize each type of load  
Patient charged basis number of each type of load used



OT sends type and number of load category used along with other instruments used for billing  
Billing Price for each type of load is pre fed into billing system

\* <http://www.healthprice.in/gall-bladder-removal-cost-in-india/>,

# Summary – Improved efficiency in OR & CSSD

## *Just Load and Go –*

- Reduced Workflow interruptions
- Enhance compliance automatically
- Reduces potential for human error
- Keeps data, audit ready and accessible





**THANKYOU**  
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