2023

WEBINAR SERIES#4

Efficiency in Medical Devices reprocessing: THE ROAD AHEAD

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intro

EFFICIENCY IN HEALTHCARE REFERS TO DO MORE AND BETTER WITH LESS RESOURCES TO PROVIDE HEALTH SERVICES WHO ARE COST-EFFECTIVE, SAFE AND BASED ON HIGH STANDARDS OF CARE.[1] EFFICIENCY CAN BE ACHIEVED WITH THE IMPLEMENTATION OF STRATEGIES THAT REDUCE THE NUMBER OF UNNECESSARY RESOURCES, OPTIMIZE WORKFLOWS, AND ADOPT INNOVATION.[2]
EFFICIENCY IN HEALTHCARE HAS BECOME A CORNERSTONE, AS TECHNOLOGIC ADVANCES AND GREATER COVERAGE CREATES PRESSURE ON LIMITED BUDGETS, AND ECOLOGIC ASPECTS MUST ALSO TAKE INTO CONSIDERATION.[1]

Increasing efficiency in healthcare contributes to their economic sustainability, competitiveness, while reducing environmental damage and lastly improving quality of care and quality of life.[3,4]
In each day, millions of invasive procedures take place and millions of reusable medical devices are reprocessed throughout the World. The appropriateness of reprocessing of medical devices is a pillar for quality and safety of care, reducing the incidence of Healthcare Associated Infections (HAI), namely Surgical Site Infections (SSI), which are responsible for 18% of all HAI in Europe.[5-9]

Without the reprocessing of reusable medical devices most procedures could not take place. Such reprocessing is also central for the adoption of a circular economy strategy, lowering the climate damage.[10-12]
Reprocessing is a complex process with several steps and different players that requires efficient technologies, proficient human resources and good health technology assessments.[13-15]
Taking as a point of departure the global concept of Efficiency in Healthcare, its applicability and implications for medical devices reprocessing, in this Webinar Series, **Efficiency in Medical Devices reprocessing: the road ahead**, we will dive into the different scenarios where medical devices are used and need to be reprocessed: the operating room and the applicability of the lean principles to increase efficiency in the global process of reprocessing.[16,17]
The Central Sterilization Services Department, where multiple strategies can be adopted in different moments, including the adoption of low temperature sterilization can contribute to maximize efficiency.[18-20]
We will also cover the importance of good traceability and material handling systems to improve efficiency in this field.[21]
Finally, as in other areas, Health Technology Assessment will be revisited as a mainstay for medical devices reprocessing in the scope of efficiency. Effectiveness and efficiency of the equipment are of fundamental importance for the outcome of the reprocessing cycle. In order to meet performance requirements equipment needs to be kept in efficient state and running condition at all times, what is achieved through specific management of the machines which involves selection, upgrading, use, maintenance and replacement of all the elements employed (decontaminators, washers/disinfectors, steam and hydrogen peroxide sterilizers, heat sealers, etc.).[14,15]

To discuss, clarify and give a positive contribution to the implementation of efficiency on MD Reprocessing, in the healthcare sector, we invite you to attend the fourth ASP webinar series under the topic "Efficiency in Medical Devices reprocessing: the road ahead".
In each webinar a renowned speaker will give an interactive talk on the subject, followed by a Q&A session where participants can ask their questions to be answered by the speaker. Current as well innovative solutions and strategies will be discussed to improve efficiency.

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topics to be addressed:

1. **MD REPROCESSING EFFICIENCY IMPACT IN HEALTHCARE:** AN OVERVIEW
2. APPLYING **LEAN PRINCIPLES** AT THE OR TO IMPROVE **MD REPROCESSING EFFICIENCY**
3. ISO 13485 CERTIFICATION AS A MOTOR TO **IMPROVE MD REPROCESSING**
4. HEALTH TECHNOLOGY ASSESSMENT ROLE ON **MD REPROCESSING EFFICIENCY**

"A final webinar will have the format of a Round Table, highlighting the take home messages of each individual session.
We count on your enthusiastic participation in this webinar series!
The road is ahead!

CARLOS PALOS | ASP SUMMIT - SCIENTIFIC DIRECTOR

References:

1.European Observatory on Health Systems and Policies, Cylus, Jonathan, Papanicolas, Irene & Smith, Peter C. (2017). Identifying the causes of inefficiencies in health systems. Eurohealth, 23 (2), 3 - 7. World Health Organization. Regional Office for Europe. https://apps.who.int/iris/handle/10665/332641. 2.Efficiency: What It Means in Economics, the Formula To Measure It (investopedia.com), Accessed on the 10th January 2023 3.Mortimer, F., Isherwood, J., Wilkinson, A., & Vaux, E. (2018). Sustainability in quality improvement: redefining value. Future healthcare journal, 5(2), 88–93. https://doi.org/10.7861/futurehosp.5-2-88 4.Zarulli V, Sopina E, Toffolutti V, Lenart A (2021) Health care system efficiency and life expectancy: A 140-country study. PLoS ONE 16(7): e0253450. https://doi.org/10.1371/journal.pone.0253450 5.Prevalence of healthcare-associated infections, estimated incidence and composite antimicrobial resistance index in acute care hospitals and long-term care facilities: results from two European point prevalence surveys, 2016 to 2017 (Pag. 7, Table 3) https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2018.23.46.1800516 3. 6.Special Report Top 10 Patient Safety 2020 - Executive-Brief, ECRI, page 9, 5. Device Cleaning, Disinfection, and Sterilization. https://www.ecri.org/landing-top-10-patient-safety-concerns-2020 7.Surgical site infections linked to contaminated surgical instruments. The Journal of hospital infection, 81(4), 231–238. https://doi.org/10.1016/j.jhin.2012.04.023. 8.Infections and exposures: reported incidents associated with unsuccessful decontamination of reusable surgical instruments. The Journal of hospital infection, 88(3), 127–131. https://doi.org/10.1016/j.jhin.2014.08.007 9.Badia, J. M., Casey, A. L., Petrosillo, N., Hudson, P. M., Mitchell, S. A., & Crosby, C. (2017). Impact of surgical site infection on healthcare costs and patient outcomes: a systematic review in six European countries. The Journal of hospital infection, 96(1), 1–15. https://doi.org/10.1016/j.jhin.2017.03.004 10.Andrea J. MacNeill, et al. Transforming The Medical Device Industry: Road Map To A Circular Economy. Health Affairs, doi.org/10.1377/hlthaff.2020.01118. 11.WHO Europe. Circular Economy and Health: opportunities and risks. Geneva, 2018. 12.G.M. Kane, C.A. Bakker, A.R. Balkenende. Towards design strategies for circular medical products. Resources, Conservation and Recycling, Volume 135, 2018, Pages 38-47, https://-doi.org/10.1016/j.resconrec.2017.07.030) 13.McCreanor, V., & Graves, N. (2017). An economic analysis of the benefits of sterilizing medical instruments in low-temperature systems instead of steam. American journal of infection control, 45(7), 756–760. https://doi.org/10.1016/j.ajic.2017.02.026 13. 14.Emily A. Hildebrand, L. Bryant Foster, Russell J. Branaghan,Chapter 19 - The Human Factors of Reprocessing Reusable Medical Equipment,Editor(s): Mary Beth Privitera, Applied Human Factors in Medical Device Design, Academic Press,2019,Pages 303-314,ISBN 9780128161630,https://doi.org/10.1016/B978-0-12-816163-0.00019-0. 15.Introduction to Health Technology Assessment. https://www.nlm.nih.gov/nichsr/hta101/ta10103.html:101 16.Dyas, A. R., Lovell, K. M., Balentine, C. J., Wang, T. N., Porterfield, J. R., Jr, Chen, H., & Lindeman, B. M. (2018). Reducing cost and improving operating room efficiency: examination of surgical instrument processing. The Journal of surgical research, 229, 15–19. https://doi.org/10.1016/j.-jss.2018.03.038. 17.Rothstein, D. H., & Raval, M. V. (2018). Operating room efficiency. Seminars in pediatric surgery, 27(2), 79–85. https://doi.org/10.1053/j.sempedsur-g.2018.02.004 18.Alfred, M., Catchpole, K., Huffer, E., Fredendall, L., & Taaffe, K. M. (2020). Work systems analysis of sterile processing: decontamination. BMJ quality & safety, 29(4), 320–328. https://doi.org/10.1136/bmjqs-2019-009422. 19.Alfred, M., Catchpole, K., Huffer, E., Fredendall, L., & Taaffe, K. M. (2021). Work systems analysis of sterile processing: assembly. BMJ quality & safety, 30(4), 271–282. https://doi.org/10.1136/bmjqs-2019-010740.

THIS FACTSHEET SUMMARIZES THE WEBINAR SERIES, HIGHLIGHTING THE RESULTS OF THE POLLS AND KEY TAKEAWAYS OF EACH WEBINAR.

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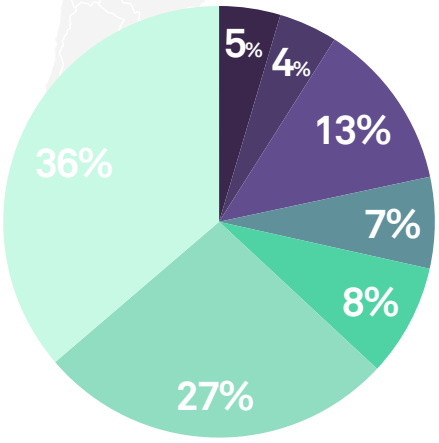
TOTAL
919
REGISTRANTS

TOTAL
72
COUNTRIES REPRESENTED

TOTAL
946
QUESTIONS ANSWERED



Professions

- Infection Prevention & Control Specialist
- Decontamination Lead / Manager
- Physician
- Other
- Clinical Sales / Production Specialist
- Healthcare Manager
- Nurse

WEBINARS global Statistics

THIS STATISTICS ARE AN INSIGHTFUL SUMMARY
OF OUR **ASP SUMMIT WEBINARS** ON EFFICIENCY
IN MEDICAL DEVICES REPROCESSING

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2023

WEBINAR SERIES#4

MD Reprocessing Efficiency impact in Healthcare: AN OVERVIEW

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WEBINAR 1

Prof. Francesco Venneri

CLINICAL RISK MANAGER AND PATIENT SAFETY OFFICER

FLORENCE HEALTHCARE SYSTEM, ITALY

intro

Efficiency is a fundamental issue for all healthcare institutions worldwide and must be a commitment for all professionals and hospital managers. Its impact on infection prevention and control is a key issue and an efficient MD reprocessing can surely contribute to decrease in HAIs and specifically SSIs which are a major burden of not only hospital budgets but also in terms of patient mortality rates.

Efficiency is directly connected to value-based healthcare which promotes value against volume rush and influences performance for all professionals dealing with both diagnostic and therapeutic procedures. Value based healthcare puts its focus on the value chain and a wise integration of all steps is the goal for future implementation of optimization strategies of MD reprocessing procedure as a key factor in reducing the incidence of HAIs and SSIs contributing to quality and patient safety.

01. Impact of HAIs in healthcare

HAIs have a strong impact on healthcare systems worldwide and its effects are clearly seen in terms of patient safety, hospital stay, financial impact on management costs, malpractice issues and reputation.[1,2,3] A survey of the state of the art on dealing with HAIs and how to lower incidence rate is the core issue of hospital quality and patient safety programs along with the role of HAIs prevention and control related to MD Reprocessing.[11]

> *"HAIs affect hospital stay and impact on costs."*

HAIs are core issues in healthcare systems worldwide and their impact is serious... Efficiency must be improved...

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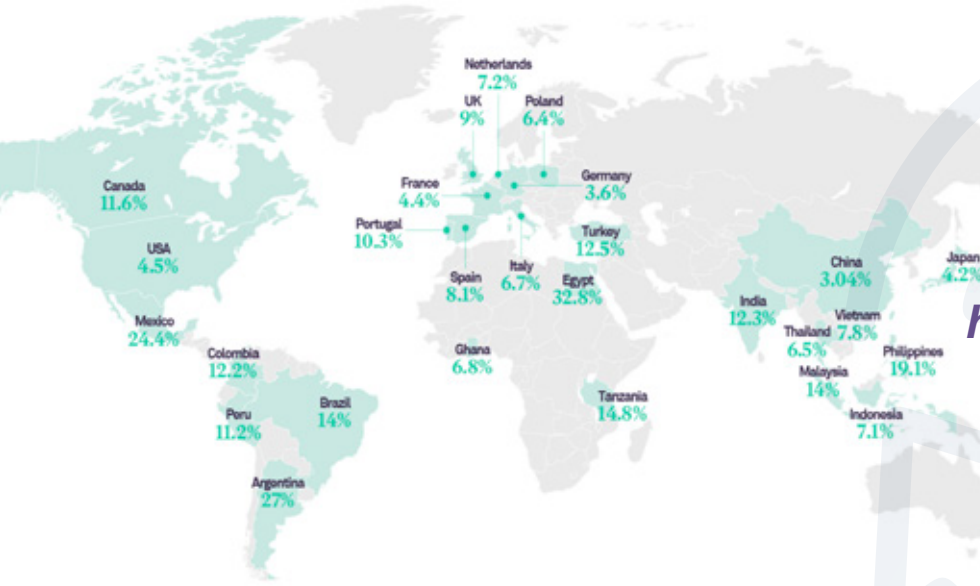


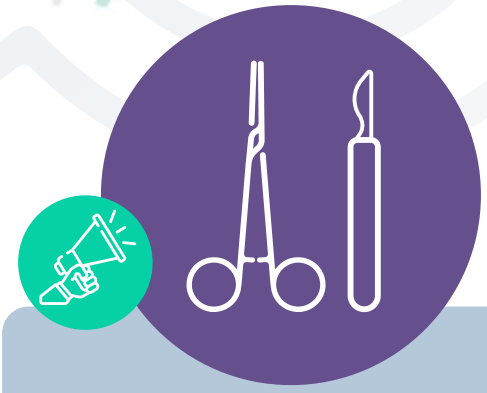
Prevalence of healthcare-associated infection, 1995-2010

Source: 2. WHO 2011 - Report on the Burden of Endemic Health Care-Associated Infection Worldwide - accessed 20210218

02. The importance of MD reprocessing in the prevention of SSI

MD reprocessing has cost-efficacy measurable parameters which yield results on the entire process of diagnostics & treatment, and it is important to underline the precise effect of each reprocessing phase under an economic impact and its key goal in patient safety and risk management.[4,5,6] One of the areas of impact is surely the reduction in SSI incidence.[13]

> *"Each reprocessing phase has an effect on SSI prevention."*



MD reprocessing effectiveness has a high impact on reducing incidence of SSIs... play an important role in reprocessing improvement..."

Category	Definition	Level of microbicidal action	Method of decontamination	Example of common items/equipment
High (critical)	Medical devices involved with a break in the skin or mucous membrane or entering a sterile body cavity.	Kills all microorganisms	Sterilization (usually heat if heat-stable or chemical if heat-sensitive).	Surgical instruments implants, prostheses and devices, urinary catheters, cardiac catheters, needles and syringes, dressing, sutures, delivery sets, dental instruments, rigid bronchoscopes, cystoscopies, etc
Intermediate (semi-critical)	Medical devices in contact with mucous membranes or non-intact skin.	Kills all microorganisms, except high numbers of bacterial spores.	High-level disinfection by heat or chemicals (under controlled conditions with minimum toxicity for humans).	Respiratory therapy and anaesthetic equipment, flexible endoscopes, vaginal specula, reusable bedpans and urinals/urine bottles, patient bowls, etc
Low (non-critical)	Items in contact with intact skin.	Kills vegetative bacteria, fungi and liped viruses.	Low level disinfection (cleaning).	Blood pressure cuffs, stethoscopes, electrocardiogram leads, etc. Enviromental surfaces, including the OR table and other environmental surfaces.

Source: 17.WHO Global Guidelines for the Prevention of Surgical Site Infection (2018), Risk Assessment of Contaminated Instruments, pag.50, Table 3.3.3

03. Efficiency in healthcare: definitions and perspectives: affordability, sustainability and value based healthcare

Healthcare systems will be measured in the future according to three major parameters impacting efficiency[10] which are affordability: a major concern for social acceptance; sustainability: an economical challenge for many services worldwide and value-based healthcare which is a fundamental parameter in understanding outcomes on a added value basis and address implementation towards giving healthcare a measurable value to be actually seen and felt by all stakeholders[14].

> ***"Affordability and value-based healthcare are challenges we must face immediately."***

Today outcomes are measured on a value-based healthcare profile... be safe be sure...

Free photos accessed on 20210528 at: https://br.freepik.com/fotos-gratis/doutores-que-examinam-paciente-senior-com-estetoscopio_8236656.htm#page=1&query=hospital%20patient%20oxygen&position= | https://br.freepik.com/fotos-gratis/medico-de-vista-frontal-usando-roupas-de-protecao-no-hospital_10752807.htm#query=10752807&position=0&from_view=search

Importance of patient safety issues

HUMAN COSTS
PROFESSIONAL COSTS
ECONOMICAL REASONS
POLITICAL COSTS

Source: 22. Center for Patient Safety – Tuscany – Italy

> ***"Every system is perfectly designed to get the results it gets."***
>
> W. EDWARDS DEMING

Attribution disputed, see source link > Source: 23. quotes.deming.org/10141

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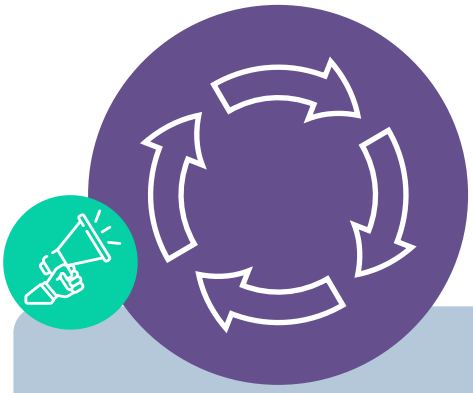
04. Efficiency of MD reprocessing: impact and optimization strategies

The efficiency of MD reprocessing has an impact on all healthcare systems beginning from patient safety to professionals' well-being.[15,16] A consequence of a strong impact factor as efficiency is seen on the end-results of the entire process up to the patients' end. These goals are to identify optimization strategies among both industry and healthcare decision makers; among these strategies a major role is represented by accreditation and certification of the entire process.[13,16] Accreditation agencies around the world such as JCAHO are focusing their main evaluation processes on the goals of reducing HAIs impact and effects on patient safety and retaining of medical malpractice claims and lawsuits.[16] These measures are achieved through the assessment of specific requisites of HAI prevention and control such as hand hygiene measures for both workers and visitors and patients as well; microbiological surveillance and diagnostic and antimicrobial stewardship as milestones for incidence reduction[6,7].

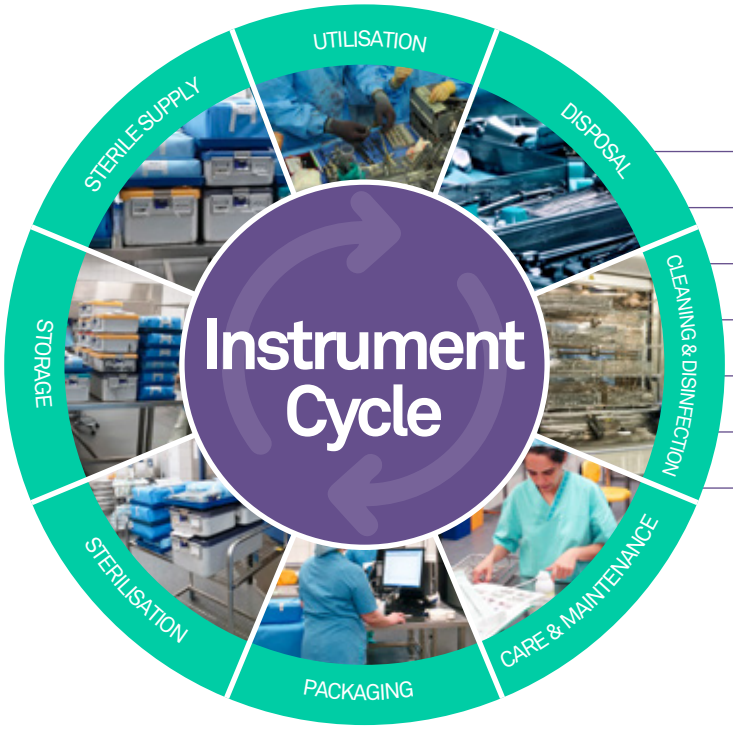


Accreditation and certification of quality and safety... help to make them optimization strategies...

"Efficiency and affordability are together with sustainability and value-based healthcare the pillars of tomorrow and outline Circular Economy in the filed of MD reprocessing."

THE STEPS OF MD REPROCESSING

Reprocessing is a multistep process that includes



- cleaning
- inspection and assembly
- functional testing
- disinfection (if applicable)
- packaging and labelling
- sterilization (if applicable)
- storage

Source: 30. WHO Global Guidelines for the Prevention of Surgical Site Infection (2018), The cycle of decontamination of a reusable surgical instrument, pag. 49 31. NSW Government – Clinical excellence Commission: Reprocessing of Reusable Medical Devices: https://www.cec.health.nsw.gov.au/keep-patients-safe/infection-prevention-and-control/Reprocessing-of-Reusable-Medical-Devices#:~:text=Reprocessing%20is%20a%20multistep%20process,(if%20applicable)%20and%20storage

Resume

HAIs have a strong impact on healthcare systems worldwide and hospital quality and patient safety programs are cantered on HAIs prevention and control related to MD Reprocessing.[2] MD reprocessing has cost-efficacy measurable parameters which yield results on the entire process and one of the areas of impact is surely the reduction in SSI incidence as these are frequently underestimated and sometimes difficult to avoid.[6,7,8,9] These are to be considered complications and all professionals working in the surgical filed should pay a particular attention to this. Healthcare systems will be measured in the future according to three major parameters impacting efficiency which are affordability, sustainability and value-based healthcare.[11,16] All of these are a major concern for stakeholders in the healthcare field and partners in reaching these goals.

A consequence of a strong impact factor as efficiency is seen on the end-results of the entire process up to the patients' end. The identification of optimization strategies among both industry and healthcare decision makers are represented by accreditation and certification of the entire process. These may contribute to implement awareness among professionals all over the healthcare field to pay major attention to practices and behaviours which may have a direct influence on outcomes.[11]

Take home MESSAGES

01 Optimization of MD reprocessing through training and increase in awareness among all healthcare workers is the main goal of the upcoming future.

02 Strategies are to be supported and among these accreditation and quality certification surely may be an added value.

03 Outcomes are to be measured on a value-based healthcare basis.

04 Circular economy and its links to the fields of HTA, Medical Device reprocessing and economy in healthcare are key topics for future implementations.

References:

1. WHO Global Guidelines For The Prevention Of Surgical Site Infection, 2018 2. WHO 2011 - Report on the Burden of Endemic Health Care-Associated Infection Worldwide - accessed 20210218 3. https://www.cdc.gov/hai/data/archive/archive.html, accessed on 1/29/23 4. Albolino S, Tartaglia R et al. Internal and Emergency Medicine, 2017 OCSE Report 2017: Patient safety and costs 5. ECRI - Top 10 Patient Safety Concerns 2020 - https://www.ecri.org.uk/wp-content/uploads/2020/06/2020_Top10_PatientSafetyConcerns_ExecutiveBrief.pdf - accessed 20210528 6. Cori L. Ofstead, MSPH, Krystina M. Hopkins, MPH, Brandy L. Buro, MS, RDN, John E. Eiland, RN, MS, Harry P. Wetzier, MD, MSPH , Challenges in aeffective high-level disinfection in endoscope reprocessing, State of the Science Review, vol 48, Issue 3, March 01, 2020 7. Best Practices for Cleaning, Disinfection and Sterilization of Medical Equipment/Devices in All Heath Care Settings, 3rd edition (May 2013), Public Health Ontario, Ontario Ministry of Health & Long Term Care, Canada 8. Dr. William Rutala, USA SGNA 2017 - Duodenoscope and Endoscope Reprocessing: A need to shift from disinfection and sterilization 9. WHO Global Guidelines for the Prevention of Surgical Site Infection (2018), Risk Assessment of Contaminated Instruments, pag.50, Table 3.3.3 10. https://grammar.yourdictionary.com/vs/efficacy-vs-efficiency-difference-between-results-based-words 11. The Challenges in Delivering the Value Chain , G.W.Roland, R.Duszack Jr.,Journal of the American College of Radiology, Vol.12, Issue 4, 409-411,2015 12. Medical Home Network, 2019 13. WHO Global Guidelines for the Prevention of Surgical Site Infection (2018), The cycle of decontamination of a reusable surgical instrument, pag. 49 14. NSW Government – Clinical excellence Commission: Reprocessing of Reusable Medical Devices: www.cec.health.nsw.gov.au/keep-patients-safe/infection-prevention-and-control/Reprocessing-of-Reusable-Medical-Devices#:~:text=Reprocessing%20is%20a%20multistep%20process,(if%20applicable)%20and%20storage , accessed on 12/03/2023 15. AORN Guideline for processing Flexible Endoscopes (2016), SGNA Standards of Infection Prevention in Reprocessing Flexible Gastrointestinal Endoscopes (2018), ANSI/AAMI ST91:2021 - Flexible and semi-rigid endoscope processing in health care facilities accessed 21 March 2023; Susan Klacik, Clinical Educator, HSPA, A Closer Look at ST91:2021 for Endoscope Processing | AAMI News, 3 March 2022. 16. Joint Commission International - High-Level Desinfection (HLD) and Sterilization BoosterPak (2018) - https://sdapic.org/wp-content/uploads/2015/12/TJC-HLD-Booster-Pak-Dec-2015.pdf – accessed 20210528

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QUESTIONS & ANSWERS

2023

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1 webinar

THE PURPOSE OF THE WEBINAR WAS TO HAVE A GENERAL OVERVIEW OF

"Medical Device Reprocessing Efficiency impact in Healthcare".

IMPACT OF SSI, THE ROLE OF MD REPROCESSING, STRATEGIES AND OPPORTUNITIES.

Attendees were asked to answer to several polls during this webinar.

WHAT IS THE HAI AND SSI IMPACT IN HEALTHCARE?

- 17% Financial burden
- 0% Length of stay
- 11% Mortality & Morbidity
- 72% All of the above

REGARDING THE REPROCESSING OF MD, WHICH STATEMENTS DO YOU THINK ARE CORRECT?

- 13% MD reprocessing is only important to prevent SSI
- 60% MD reprocessing is on the top 10 of patient safety concerns
- 27% The categorization of MD according to the Spaulding classification must be changed
- 0% MD reprocessing is not priority for CEOs and needs to be put on a secondary basis

HOW DOES EFFICACY AND EFFICIENCY INFLUENCE QUALITY HEALTHCARE OUTCOME?

- 0% These issues are not important in quality outcome
- 11% Only efficacy is a key influencer to quality outcome
- 0% Only efficiency is a key influencer to quality outcome
- 89% Both are key influencers in quality and safety outcomes in healthcare

SUSTAINABILITY AND VALUE-BASED HEALTHCARE ARE THE CHALLENGES OF THE FUTURE. MD REPROCESSING MAY HAVE AN IMPORTANT ROLE IN ASSURING THESE GOALS. WHAT ARE TO BE CONSIDERED THE MILESTONES?

- 17% CEOs commitment and investments
- 6% Healthcare systems are not modifiable systems
- 22% CEOs commitment to patient safety and process surveillance
- 56% Systems change to better practices

2023

WEBINAR SERIES#4

Applying Lean principles at the OR to improve MD reprocessing

Efficiency

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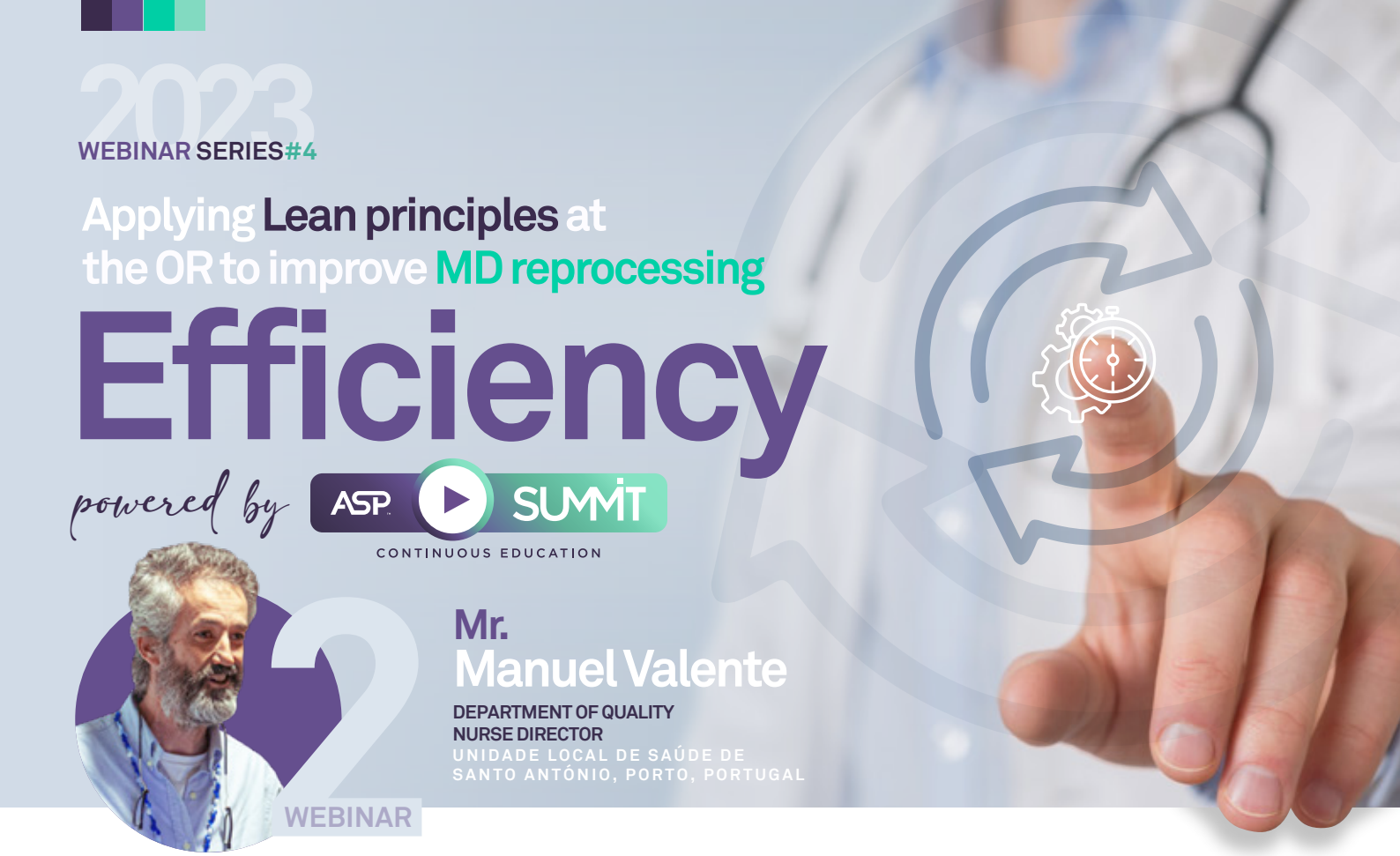
Mr. Manuel Valente

DEPARTMENT OF QUALITY
NURSE DIRECTOR
UNIDADE LOCAL DE SAÚDE DE SANTO ANTÓNIO, PORTO, PORTUGAL

WEBINAR



intro

All over the world and in general, healthcare has an increasing financial burden, because population ages, and needs more health care, for longer time, or on the other hand because technology evolves, and to provide better quality of life, has higher costs; the trend is increasing cost.

Besides healthcare market is more competitive and patients more informed and demanding. On the other hand, evidence demonstrates that in the health care area, 30-40% of costs are waste - pure and simple.[1]
Improving the efficiency and effectiveness of medical device reprocessing is one component of the solution for providing more and better healthcare.

The operational response to this challenge must be to reduce the number of activities or tasks that do not add value to the process (simplifying it), in order to make them "fat-free" (reducing actions that only consume resources, without adding value to the workflow and final result). This is the basis of the philosophy "Lean healthcare" management.

01. General LEAN principles

Operationalization of the concept "LEAN management" in the Operating Room (in the context of MD use and reprocessing), is based on the idea that the processes developed in this area of healthcare can be described as flows of sequential activities, where resources are placed to respond to the objective (MD - Medical Devices - reprocessing); in this sequence of activities, various forms of waste are classically recognized, classified as defects, excess production, stock, transport, unnecessary movements, rework, waiting and more recently talent or knowledge.

Why does **LEAN** Work in Healthcare?

- LEAN is not a list of tools that applies only to factories
- LEAN rallies people around goals we can all agree on: *Patients & Employees for Quality*
- LEAN is a philosophy of management that applies to any system

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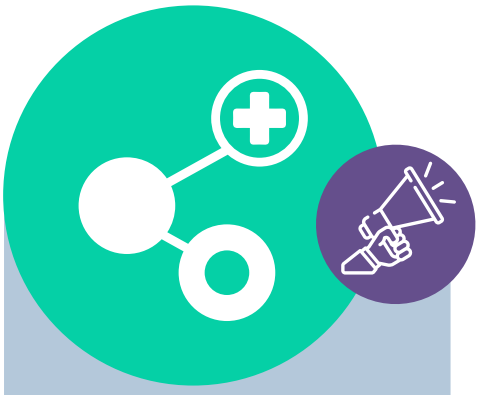
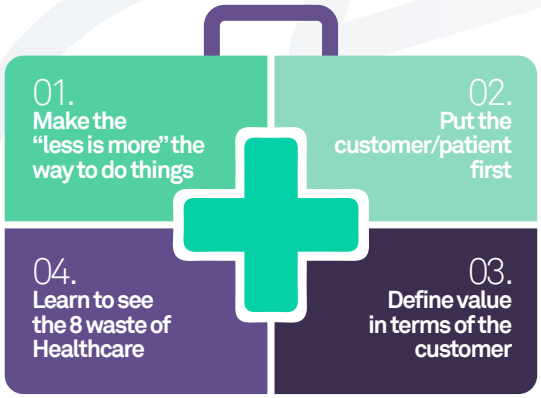
To combat the useless use of resources, the most commom used tools are Value Stream Mapping, "Kaban", "5S", space ergonomics, "poka-yoke" devices, kaizen events or the systematic monitoring of process indicators.
LEAN requires continuous thinking about progress, problem solving, and questioning the status quo (feeding continuous improvement).



LEAN requires continuous thinking about progress, problem solving, and questioning the status quo (feeding continuous improvement).

> ***"Improving the efficiency and effectiveness of processes, in a continuous way and focused on what has value for the customer, is the necessary answer."***

Basic Values of **LEAN** Healthcare



Applications of **LEAN** Healthcare

01 **Laboratories** | Reducing turnaround times and errors

02 **Emergency Departments** | Reducing diversions, improving the flow

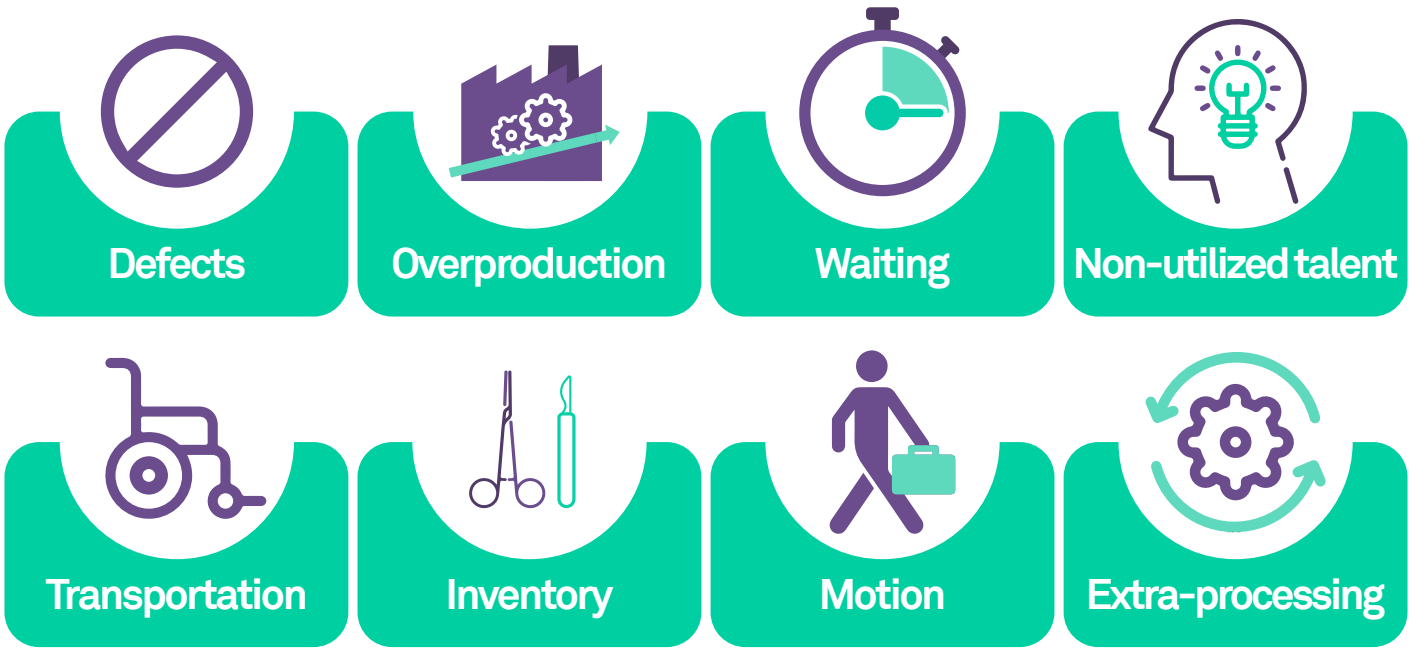
03 **Outpatient Cancer Treatment** | Reducing patients delays, increasing capacity

04 **Operating Rooms** | **Reducing changeover times, increasing response**

05 **Pharmacies** | Reducing errors, improving response

06 **Food Service** | Reducing wasted food, improving quality

8 TYPES OF "WASTE":
Wastes of LEAN manufacturing



02. Quality and standardization of procedures and processes

Every day, patients in need of surgical interventions, have aimed that their surgery will take place according to a pre-established plan (which conditioned their personal and professional life and also that of their family). This plan must be sufficiently weighted to ensure that the surgical program is carried out with a very high probability, without constraints, always based on the installed capacity of the hospital organization. The support processes necessary for the surgery are "calibrated" to respond to planned needs, with the minimum necessary resources and with standardized practices for process safety. All activities that constitute the surgical procedures are designed and established to guarantee with high probability that the treatment will have the best possible results at first time (free of complications, including SSI- surgical site infections).

Continuous monitoring of process and result indicators guide the way forward

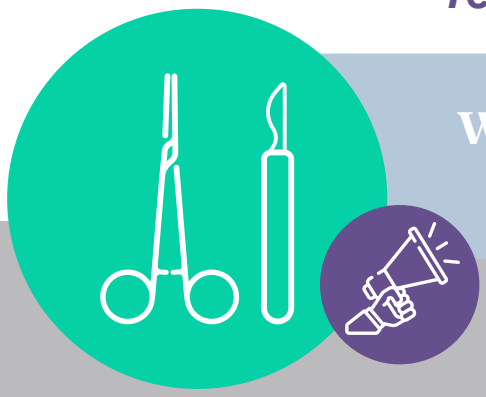
"Advance planning and normalization of processes are the key to surgical success and safety."

03. Reduction of waste associated with the management of surgical MD

The establishment of a standard of surgical activity is based on the investment in installed capacity, the costs of maintenance of capacity, the costs associated with the professionals needed for the activities to be carried out (e.g. time of OR activity, type of surgery to be performed and financing, etc.), the rate of efficiency and effectiveness of the process.

If we focus in particular on issues related to surgical instruments and the management of their use (quantity, type, reuse, etc.), efficiency approach models must take into account multifaceted strategies that respond to the surgical healthcare needs (OR outsourcing processes, MD volume reduction per surgery, single use / reprocessable MD weighting, installed capacity – surgical instruments, allocated time and surgeons, etc.).

> ***"All the parts that make up the jigsaw of the surgical activity must be taken into account in order to reduce process waste."***



Waste management is a daily activity that cuts across the entire surgical process.

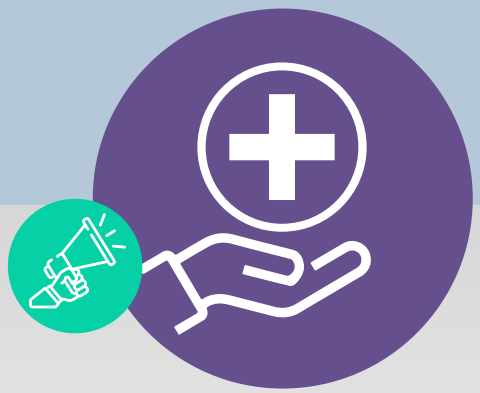
04. Process improvement and pre-processing activities for MD reprocessing efficiency

Surgical activity bases its action on a group of professionals, who, in a concerted and synergistic way, develop their professional activity, with the aim of responding to surgical health care, in a timely manner, effectively and efficiently (always at first time and without defect and at the lowest cost).
The use and reprocessing of surgical MD is a significant part of this activity, due to the increasing complexity of MD, more challenging reprocessing protocols, associated with more demanding surgical procedures in increasingly severe patients.

Source: iStock-1168697920, iStock photo database accessed 20221108

This process begins with the choice and purchase of the MDs, planning the local operationalization of the reprocessing protocols, systematization of practices, restarting at each use, optimizing post-use decontamination conditions, still in the operating room (eg dedicated teams, in-depth and up-to-date knowledge of MDs, intraoperative and post-procedure care functional maintenance of MD, efficient and effective workflows, adequate surgical volume, etc.).
The results of an investment of this type, can only be expected on the surgical results (eg. very low rates of surgical infection, high cost effectiveness, controlled surgical waiting lists) and development and research.

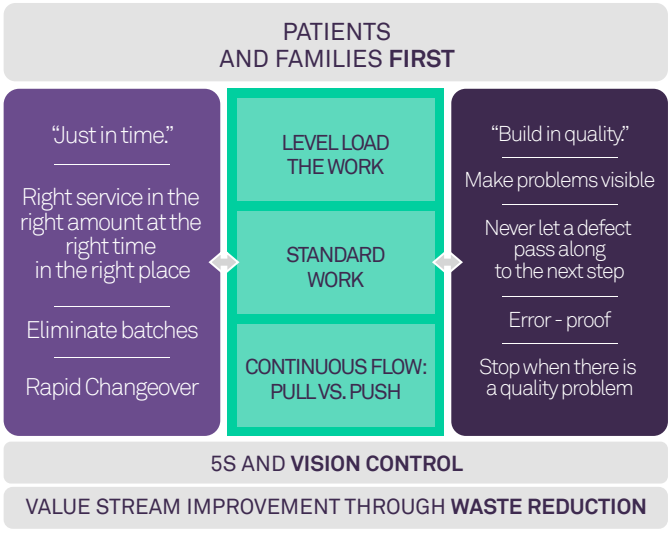
The MD reprocessing begins at the time of use



"The integrated view of the MD reprocessing (during use, prior to definitive reprocessing) optimizes activity conditions and benefits process efficiency / efficacy."

05. Integration of management processes for continuous improvement and efficiency

The maintenance of high productivity, effectivity and efficiency, has to be based on an organizational culture of continuous improvement.
This organizational model is fed on a daily basis with strategies and work tools that promote the alignment of teams with the organization's objectives.
The Lean philosophy has as its operational anchor the promotion of teamwork and leadership training (eg CRM - Crew resource management, "Gemba walks"), associated with daily operational planning (daily Kaizen), based on the measurement of performance indicators (eg. surgical cancellation rate, minutes delay in starting surgery, turn-over time, etc.).
Performance never results from chance, but from the daily and systematic organization of planned activities.



"The improvement of processes will always be the sum of actions combined with the synchrony of the real will of its actors (always led by top management)."

Performance never results from chance, but from the daily and sistematic organization of planned activities."

Resume

The adoption of a work methodology with a philosophical vision of operational action, meticulously organized and with personalized responses to the context, allows a change in results with infinite potential; despite a simplified methodology, intuitive operational principles and obvious results, it needs years of implementation and training of the actors (acculturation), so that the achieved objectives are not surpassed by the normal tendency towards chaos.

The organizational transformation that is pursued in this model, with a high return, can only be left free, after the work philosophy becomes the model of action of the actors and the matrix of institutional work.

The transformational adoption of the process management model makes the organization a standard of conduct that cannot be shaken.

01 **Looking at reality with an alternative matrix leads us to a new reality, with a high potential for improvement**

02 **Normalizing is not intended to constrain professionalism or a visionary streak, just to ensure that the expected result happens at first time**

03 **The awareness of results enhancement, is the lever and the fulcrum of the continuous improvement**

04 **The strategic simplicity of the LEAN philosophy cannot be confused with ease of implementation**

Take home MESSAGES

APPLYING **LEAN PRINCIPLES** AT THE OR TO IMPROVE MD REPROCESSING EFFICIENCY

References:

1. Graban, Mark Lean Hospitals: Improving Quality, Patient Safety, and Employee Engagement, 3rd edition October 2018 DOI:10.4324 / 9781315380827

Additional Resources:

- Hadfield, Debra ; Holmes, Shelagh The Lean Healthcare Pocket Guide, 2006
- Grove, Amy L., Meredith, James O., Macintyre, Mairi, Angelis, Jannis and Neailey, Kevin (2010) UK health visiting : challenges faced during lean implementation. Leadership in Health Services, Vol.23 (No.3). pp. 204-218. doi:10.1108/17511871011061037 ISSN 1751-1879
- Seiden SC, Barach P. Wrong-Side / Wrong-Site, Wrong-Procedure, and Wrong-Patient Adverse Events: Are They Preventable? Arch Surg. 2006;141(9):931–939. doi:10.1001/archsurg.141.9.931
- Huang, Yu & Li, Xueping & Wilck, Joseph & Berg, Tom. (2012). Cost reduction in healthcare via Lean Six Sigma. 62nd IIE Annual Conference and Expo 2012

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QUESTIONS & ANSWERS

2023

WEBINAR SERIES#4

2 webinar

THE PURPOSE OF THE WEBINAR WAS TO HAVE A GENERAL OVERVIEW OF

"Lean principles applied at the OR to improve MD reprocessing efficiency".

LEAN PRINCIPLES, QUALITY & STANDARDIZATION, REDUCTION OF WASTE, PROCESS IMPROVEMENTS AND CONTINUOUS IMPROVEMENT AND EFFICIENCY.

Attendees were asked to answer to several polls during this webinar.

WHAT IS LEAN MANAGEMENT?

4%	It is a management methodology, whose main objective is to cut costs and reduce staff
44%	It is a management philosophy that promotes the continuous improvement of processes, based on the value for the clients, with the contribution of all professionals involved
15%	It is a set of management tools, used to solve problems of inefficiency
37%	It is a work methodology, promoting the improvement of the efficiency of processes, used in the resolution of day-to-day problems

WHAT ARE THE CLASSICAL TYPES OF WASTE?

26%	Regulated waste, clinical waste, urban waste, chemical waste and radioactive waste
35%	Defects, overproduction, waiting, transport, inventory stock, motion, extra processing
26%	Biological waste, urban waste, chemical waste and radioactive waste
12%	Clinical waste, urban waste and industrial waste

HOW WE CHANGE THE ACTUAL OPERATIONAL MANAGEMENT PRACTICE?

7%	With strong leadership, external expert advisors and a complex off-the-shelf IT toolkit
86%	With a new work philosophy approach, integrating the contributions of the employees, apprehending a management model oriented to the value for the customer, reducing known procedures waste
7%	Reducing the number of employees, outsourcing services, with a view to increasing earning
0%	Waiting for new artificial intelligence technologies, which can replace us in the action of defining new and better action strategies

2023

WEBINAR SERIES#4

ISO 13485 certification as a motor to improve MD Reprocessing Efficiency

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CONTINUOUS EDUCATION

WEBINAR 3

Mr. Wouter Meert

PROCESS-PROJECT MANAGER
CSSD, HEAD INSTRUMENT MANAGEMENT
UZ LEUVEN, BELGIUM

intro

Manual labor is necessary for the daily operation of a CSSD. Many of the critical processes remain without automation. Additionally, customer requirements can increase workloads and define the process flow within our departments.

How can we change this inefficient use of resources based on random customer demands?
By introducing ISO13485[1] quality system requirement standards in your department, you are able to strictly define your own processes and continuously improve them.

ISO13485[1] standards allow you to use various types of data to conduct process analyses, and identify areas where improvements should be made. The fundamental idea is to "secure our qualitative sterile end-product in the most efficient way.

01. Developing a data management system to analyze your daily operations:

We all understand the principles of traceability and its importance in patient safety. However, is traceability within the CSSD sufficient to call it a data management system?
To objectively assess your process performance, you need data.

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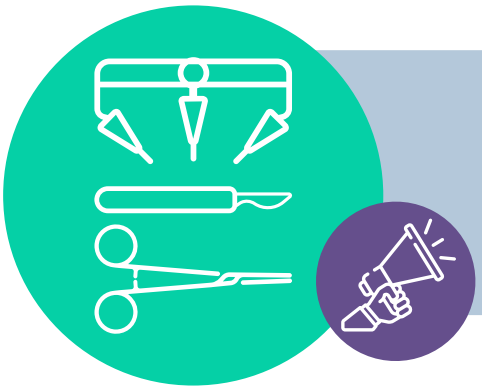
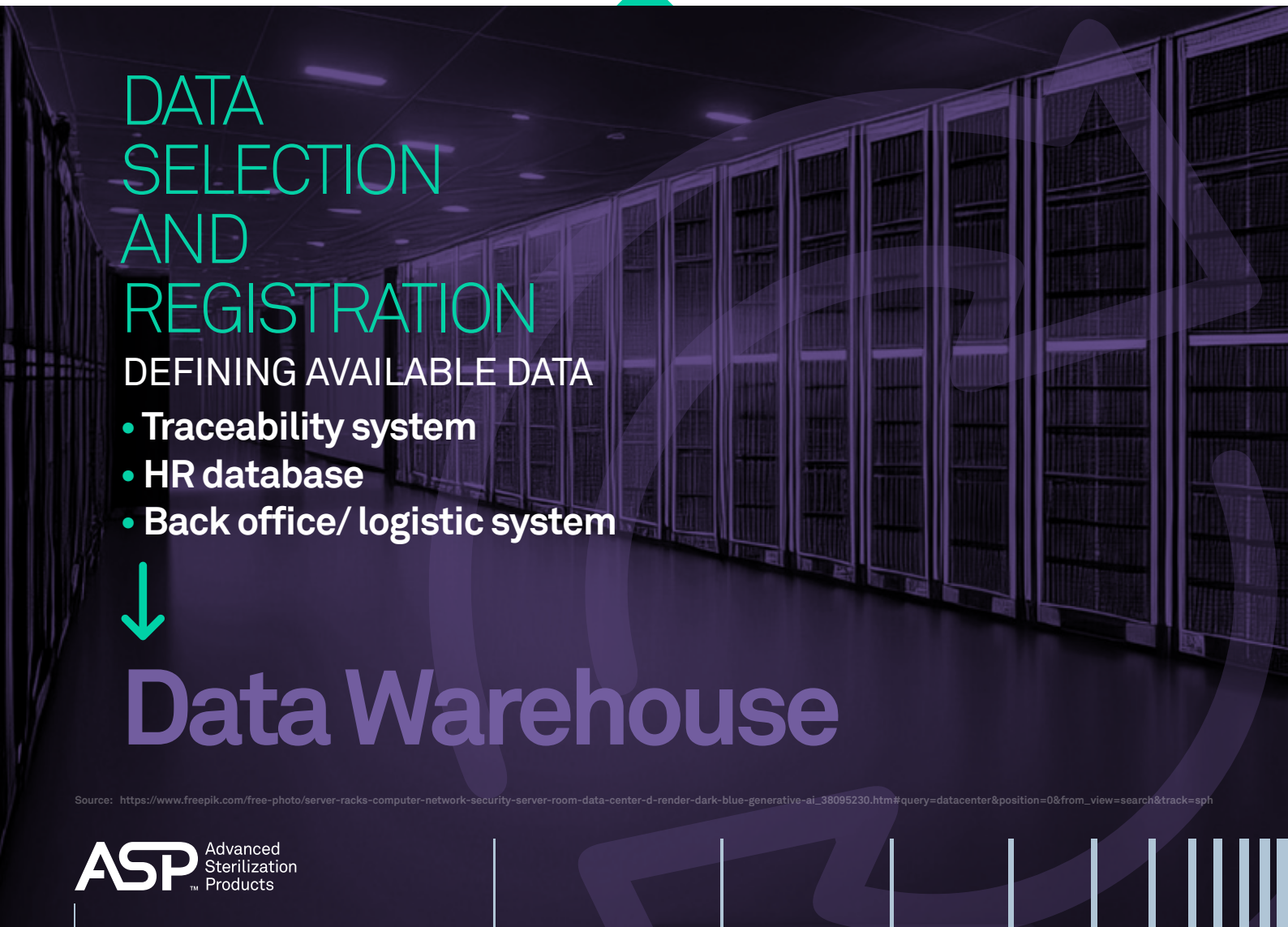
This data should not only come from your traceability system but also from other sources. Developing a data management system involves finding the right balance between measuring and obtaining the correct data and conducting analyses.[2] What do you need to know to have an objective view of your process? Is it turnover times, the number of sets reprocessed per day, distribution of sets over operational working hours, etc.? We used all this data to make changes in our department's policy and make it more efficient. One example of change we made is optimizing staff dispersion efficiently through the department.

> ***"To objectively assess your process performance, you need data."***



Collecting and analyzing data is an essential part of identifying inefficient processes, detecting necessary changes to keep your efficiency or point out possibilities to increase efficiency.

Developing a data management system



DATA SELECTION AND REGISTRATION

DEFINING AVAILABLE DATA

- **Traceability system**
- **HR database**
- **Back office/ logistic system**

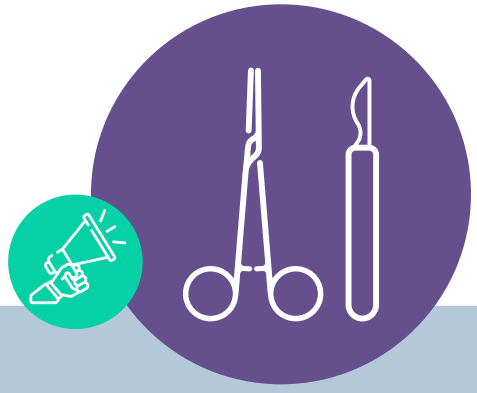
↓

Data Warehouse

Source: https://www.freepik.com/free-photo/server-racks-computer-network-security-server-room-data-center-d-render-dark-blue-generative-ai_38095230.htm#query=datacenter&position=0&from_view=search&track=sph

02. Risk analyses as the basis for improving efficiency:

Identifying the risks within your CSSD process is an important aspect of ensuring the daily operational activity is secure. We employ methods like FMEA (Failure Modes and Effects Analyses) or risk matrix[3] to assess various aspects of our department and process, including energy, infrastructure, human resources, IT, and the CSSD process itself. These analyses trigger the drafting of action plans to control these risks and often result in increased efficiency as a side effect. For instance, digitalizing the control process to reduce the risk of releasing non-sterile loads not only enhanced safety but also brought about significant time and economic savings.



Risk analyses need to prevent possible bad outcomes but often give a base for improvement due to developed action plans.

These analyses trigger the drafting of action plans to control these risks and often result in increased efficiency as a side effect."

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03. Policy plans and management review[4] to ensure top management support:

Policy plans play a crucial role in the development of your CSSD department. Creating a 10-year plan focused on equipment, increasing capacity, and optimizing staff deployment is essential. Thinking and working on both short and long-term ideas are key to improving efficiency. As a confirmation of these ideas, a yearly management review is performed to provide an overview of the department's present activities and ensure top management's support. Both of these components share the same goal: ensuring top management is on board with the improvement efforts.

> ***"Thinking and working on both short and long-term ideas are key to improving efficiency."***

Increasing efficiency sometimes is long term work with availability of extra resources. Policy plans and management reviews help to ensure support of top management.

Policy plan:

Project optimizing flow loaner sets.

GOAL

Building an efficient operational process

Ordering , invoicing, reprocessing and tracing

Financial analyses sterile vs non sterile delivery

Efficient instrument storage

- Simplifying picking and registration
- Inventory
- Yearly financial analyses

- Infrastructural change
- Software support, link to traceability system

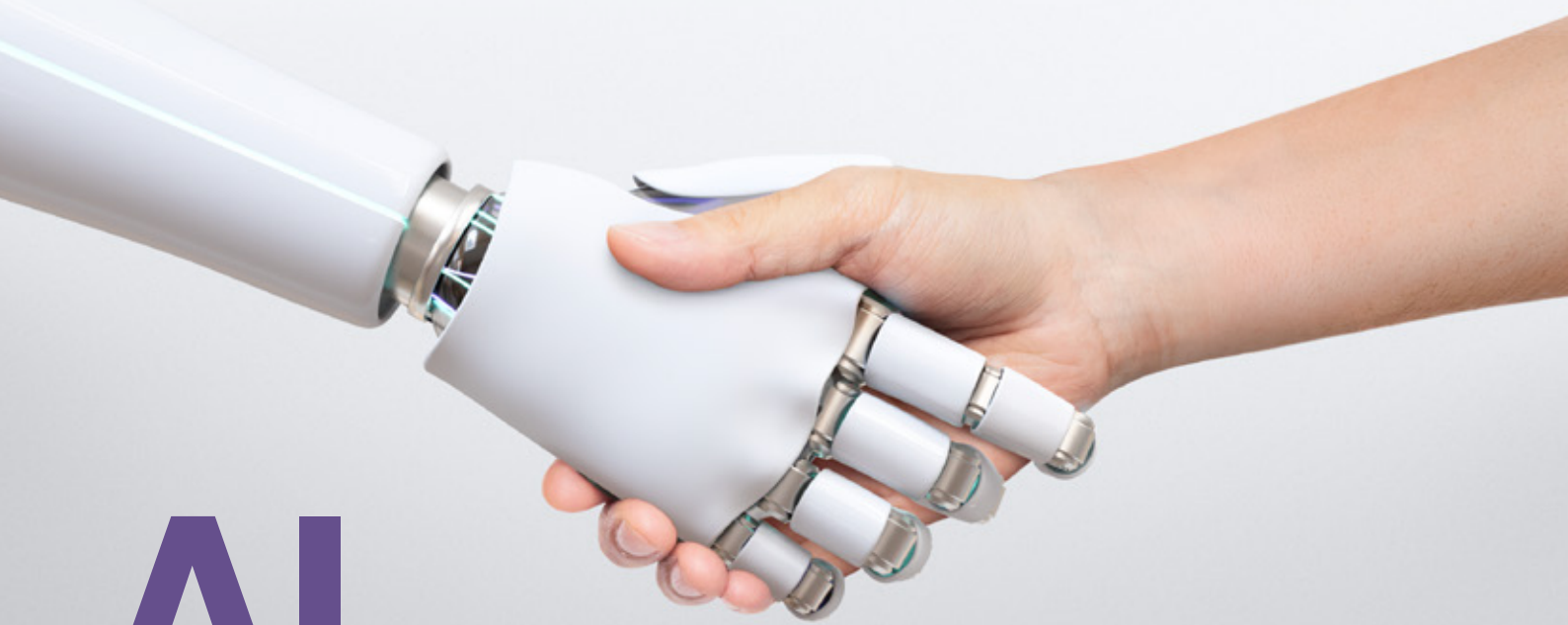
- Time saving, reducing searching times
- Economical benefits

04. Automation and robotization: How far can we go?

CSSD has always been a department heavily reliant on manual handling, which demands a considerable workforce. Manual handling can be costly and not always efficient, also manual labor is more sensitive to errors with an decrease of quality outcomes, staff members are not robots. However, due to advancements in technology, CSSD can now embrace automation and robotization.[5] By utilizing AI, RFID, and robots in the CSSD process, efficiency can be improved. The question remains as to what impact automation and robotics can have on the daily workflow of a CSSD and what is possible as technologies advance.

> *"By utilizing AI, RFID, and robots in the CSSD process, efficiency can be improved."*

AI, automation, robots, RFID: new technologies are becoming more available for the CSSD processes. Reducing human error, increasing quality and efficiency. Make sure they are in balance with the economical reality



AI
artificial intelligence

- Control of human handling | Error reduction | Procedural handlings, set content, cleanliness, loading releases (...)
- Taking over human handling | Error Free – continuously improvement)

Source: https://www.freepik.com/free-photo/robot-handshake-human-background-artificial-intelligence-digital-transformation_17850420.htm#query=ROBOT%20GREY&position=35&from_view=search&track=ais

Resume

WORKING ON EFFICIENT PROCESS FLOWS WITHIN THE CSSD IS A MULTI FACTOR AND CONTINUOUS PROCESS

DATA, RISK ANALYSES, POLICY PLANS AND NEW TECHNOLOGIES ARE TOOLS TO IDENTIFY POSSIBLE PROFITS

WORKING ON EFFICIENCY IS SOMETIME THE DIFFICULT BALANCE BETWEEN NEW TECHNOLOGIES AND ECONOMICAL REALITY

OUR GOAL STAYS THE SAME: "DELIVER A QUALITATIVE STERILE END PRODUCT ON A TIMELY MATTER WITH FOCUS ON ABSOLUTE PATIENT SAFETY"

01 Collecting and analyzing data is an essential part of identifying inefficient processes, detecting necessary changes to keep your efficiency or point out possibilities to increase efficiency.

02 Risk analyses need to prevent possible bad outcomes but often give a base for improvement due to developed action plans.

03 Increasing efficiency sometimes is long term work with availability of extra resources. Policy plans and management reviews help to ensure support of top management.

04 AI, automation, robots, RFID: new technologies are becoming more available for the CSSD processes. Reducing human error, increasing quality and efficiency. Make sure they are in balance with the economical reality.

Take home

MESSAGES

ISO 13485
CERTIFICATION AS A
MOTOR TO IMPROVE
REPROCESSING
EFFICIENCY

References:

1. ISO 13485:2016 Medical devices — Quality management systems — Requirements for regulatory purposes, https://www.iso.org/standard/59752.html, accessed on 20/09/2023
2. Wouter Meert – University Hospital Leuven CSSD | SAP Bevragingstool
3. Wouter Meert – University Hospital Leuven CSSD Reports | Graphics: UZ Leuven, FMEA excel CSSD, 2023
4. Wouter Meert – University Hospital Leuven Reports (Beleidsplan E995 Centrale sterilisatie afdeling 2021-2025 and Management Review CSA 2023)
5. Wouter Meert – University Hospital Leuven | Image: courtesy of R-solutions, Duomed and Digital folder KEN hygiene systems

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2023 webinar

WEBINAR SERIES#4

THE PURPOSE OF THE WEBINAR WAS TO HAVE A GENERAL OVERVIEW OF

"ISO 13485 certification as a motor to improve MD Reprocessing Efficiency".

DATA MANAGEMENT, RISK ANALYSIS, POLICY PLANS AND MANAGEMENT REVIEW, AUTOMATION & ROBOTIZATION, FOR INCREASE QUALITY AND EFFICIENCY

Attendees were asked to answer to several polls during this webinar.

DO YOU ANALYZE/FOLLOW UP PROCESS DATA FROM YOUR CSSD DEPARTMENT?

- 42% Yes, monthly or anually
- 37% Yes, on a daily basis
- 11% No, we don't have a data management system
- 11% No, we have a data management system but no time to analyze

DO YOU PERFORM RISK ANALYSES AT YOUR DEPARTMENT?

- 22% No, we don't have the knowledge to perform risk analyses
- 11% Yes, one time as a separate action
- 61% Yes, we perform it periodically, it's a part of our quality system
- 6% No, our hospital regulation doesn't demand it

DO YOU HAVE A LONG-TERM POLICY PLAN FOR YOUR DEPARTMENT?

- 31% Yes, as a personal initiative to improve my department
- 15% No, but we are thinking about it or in development
- 15% No, no plans in the near future to develop a policy plan
- 38% Yes, as an obligation from hospital management or quality system

DO YOU BELIEVE THAT A CSSD CAN BE LARGELY ROBOTIZED?

- 7% Yes, it's the future
- 67% Yes, partially there will always be some manual handlings
- 27% No, too many CSSD handlings can't be robotized

2023

WEBINAR SERIES#4

Health Technology Assessment role on MD Reprocessing efficiency

powered by ASP SUMMIT

CONTINUOUS EDUCATION

4 WEBINAR

Eng.
Jonathan Hart

HEAD OF TECHNOLOGICAL INNOVATION AND HEALTH TECHNOLOGY ASSESSMENT POLICLINIC UNIVERSITARIO CAMPUS BIO-MEDICO
ROME, ITALY

intro

Effectiveness and efficiency of MD reprocessing are achieved through proper selection, use, maintenance and technological updates of the equipment involved (decontaminators, washers/disinfectors, sterilizers, etc.) as well as adequate planning of workflows, procedures, staffing and organization in general in order to meet throughput needs.

Health Technology Assessment (HTA) takes all these aspects into account and therefore can play an important role in managing reprocessing efficiency.

01. Introduction to Health Technology Assessment

Health technology assessment is a systematic and evidence-based methodology that considers the multiple dimensions (safety, effectiveness, economic and organizational aspects, as well as social, ethical and legal implications) of healthcare technologies (equipment, drugs, devices, procedures).[1] This means that HTA can be applied to the MD reprocessing cycle as a tool for improving efficiency by measuring how changes in the process or novel methods compare to the current practice.

HTA is a multidimensional evidence-based methodology for supporting decision making.

> *"HTA can be applied to the MD reprocessing cycle as a tool for improving efficiency."*

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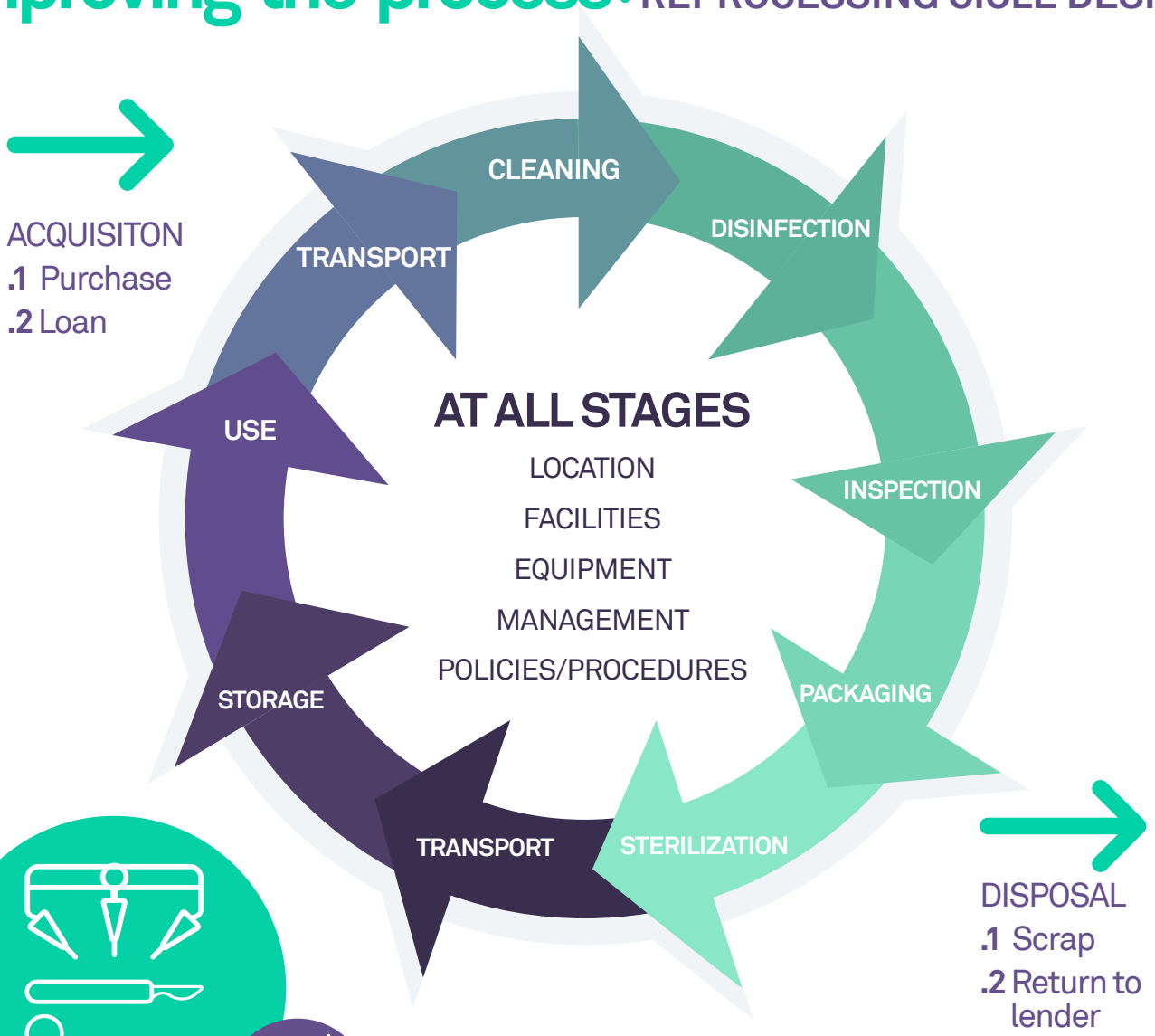
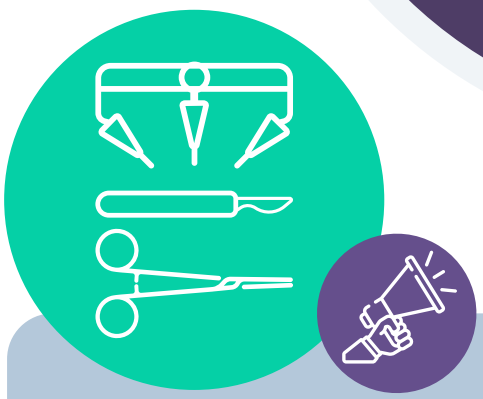
02.HTA and its role in the reprocessing of MDs

Efficiency is achieved by maximizing the output of a process given the inputs.[2] The multiple system inputs can be represented as measurable variables relative to the hospital's productive assets and procedures; the same multidimensional elements are taken into account by the comprehensive HTA approach that is therefore useful in investigating reprocessing efficiency.
The technological evolution of medical devices poses a challenge to the reprocessing cycle: novel and more sophisticated medical devices are also more delicate and require procedures that are more complex.[3] Therefore, in assessing the introduction of a new device, it is important to consider implications in terms of training, staffing, equipment and time needed for reprocessing.

improving the process · REPROCESSING CICLE DESIGN





Reprocessing efficiency depends on all the productive assets involved.

> *"In assessing the introduction of a new device, it is important to consider implications in terms of training, staffing, equipment and time needed for reprocessing."*

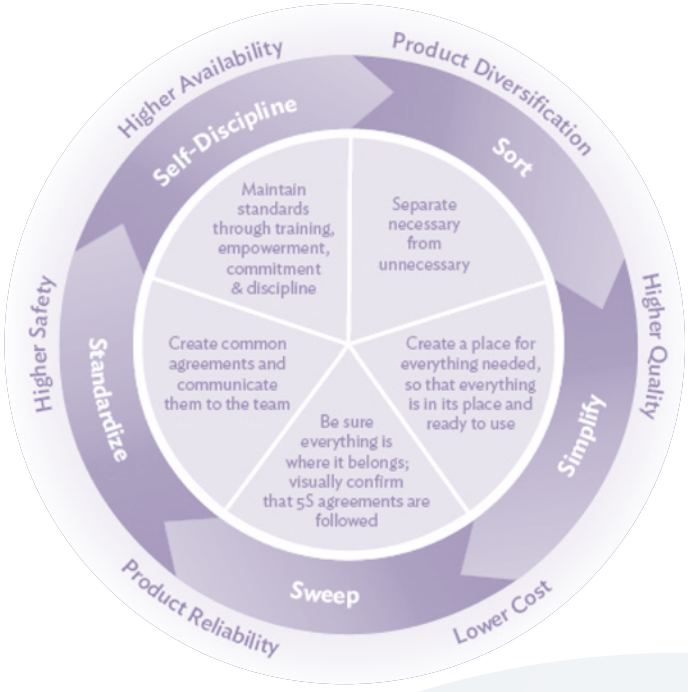
03. Efficiency in MD reprocessing and HTA applications

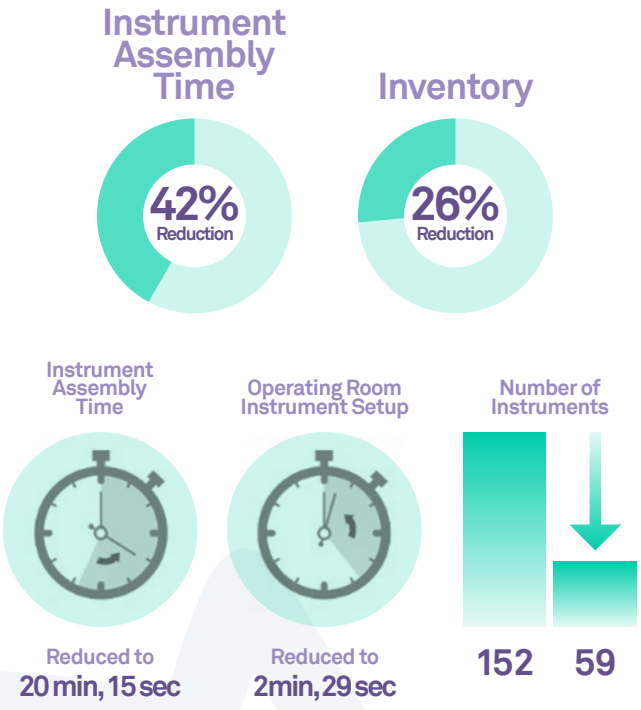
Efficiency in reprocessing is relative to a number of factors (ranging from time to energy to materials employed) each one of which is determined by the combination of all the operational elements involved. In order to meet performance requirements equipment must be kept in efficient state and running condition at all time; this is achieved through management of the machines which involves selection, upgrading, use, maintenance and replacement of all the elements employed (decontaminators, washers/disinfectors, steam and hydrogen peroxide sterilizers, heat sealers, etc.)[4]. Productivity and efficiency of the cycle can be tracked, and therefore improved, by measuring the process rate and operating time of the equipment.

Furthermore the reprocessing cycle[5] must be designed according to the service required (scheduled procedures, operating rooms, outpatient clinics, wards, etc.) while taking into account the available assets (staffing, equipment, instruments, etc.). Set optimization is an approach to gaining efficiency which allows saving on all resources[6,7,8]: time (washing and assembling), money (inventory reduction, less energy and water consumed, staffing, maintenance).

Both efficiency and effectiveness depend on equipment maintenance and IFUs.

In order to meet performance requirements equipment must be kept in efficient state and running condition at all time."





Source: Source: Virginia Mason Institute (2021) - Case Study | Surgical Setup Reduction Improves Patient Outcomes

Set Optimization

Example: head and neck trays

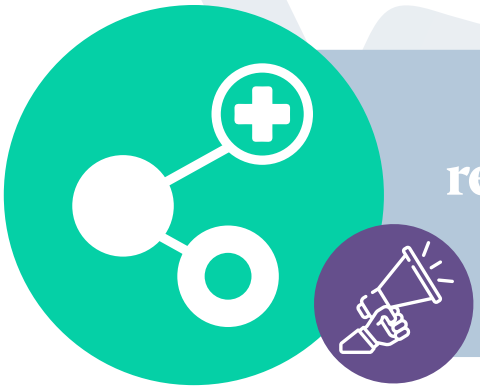
01 Original head and neck tray before instrument reduction.

02 Thyroidectomy and parathyroidectomy tray after instrument reduction.

Source: AR Dyas - Reducing cost and improving operating room efficiency: examination of surgical instrument processing - Journal of Surgical Research (2018)

04. MD reprocessing efficiency examples and future ahead

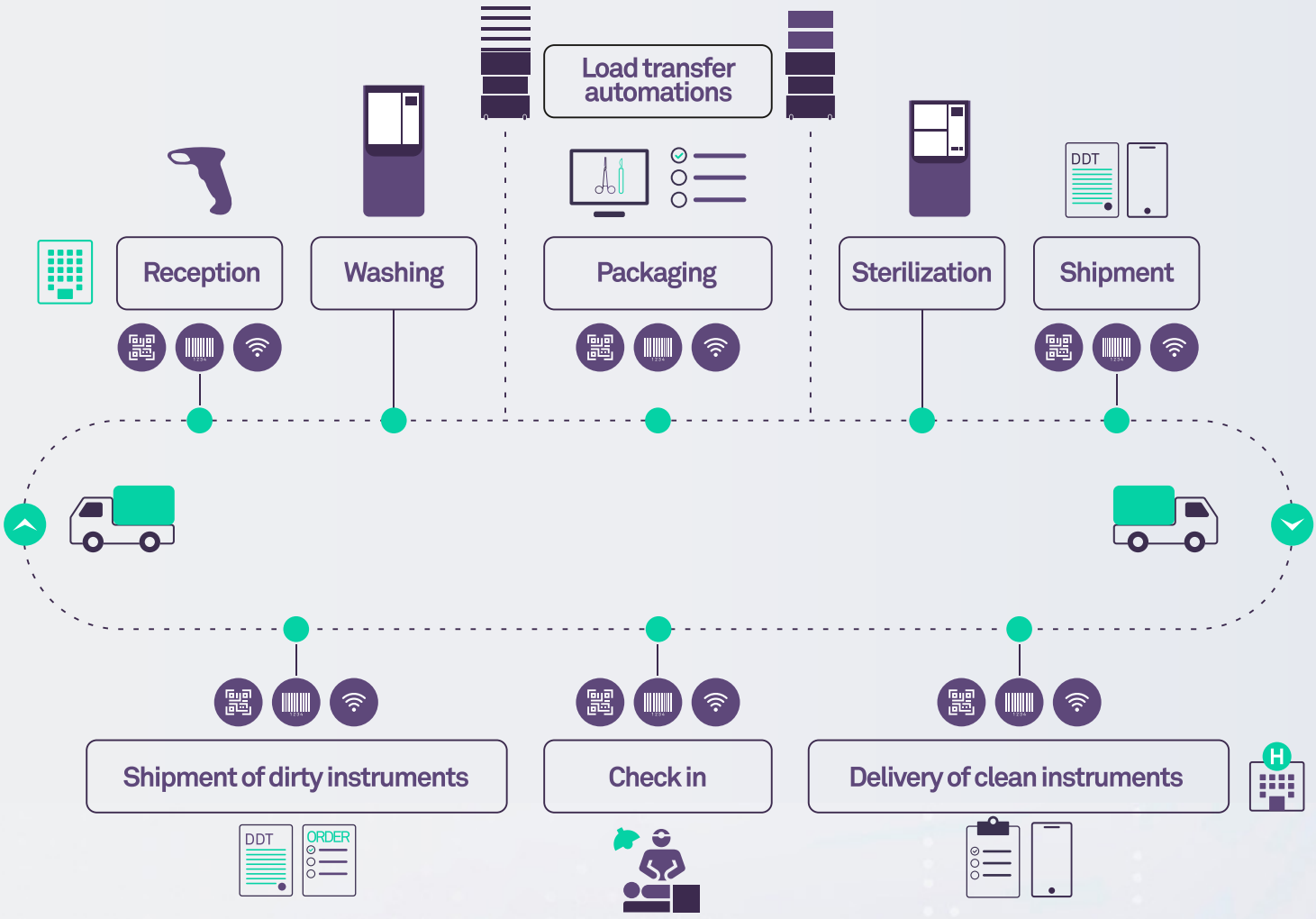
Contingent conditions (budget constraints, energy cost increase, material shortages) determine constant demand on process (and reprocessing) efficiency. Industrial advances in technology, such as automation and artificial intelligence, applied to MD reprocessing can be useful tools in achieving efficiency goals[9]. Monitoring systems can provide automated data and traceability collection and analysis while systems with AI can identify instruments and guide operators through kit assembly reducing complexity and human error while saving time[10,11].



New technologies can improve reprocessing by saving time, reducing human error, gathering and managing data.

> ***"Industrial advances in technology, such as automation and artificial intelligence, applied to MD reprocessing can be useful tools in achieving efficiency goals."***

Applications in MD reprocessing

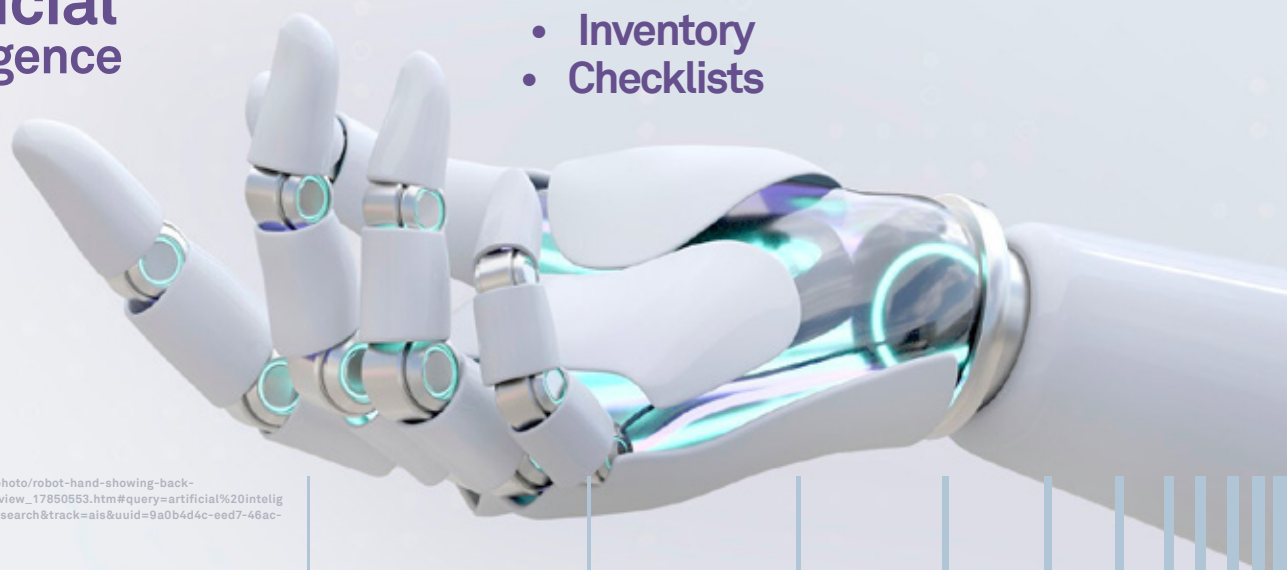


AI

artificial intelligence

Instrument vision systems

- Instrument recognition
- Human error reduction
- Time saving
- No DataMatrix or RFID
- Inventory
- Checklists



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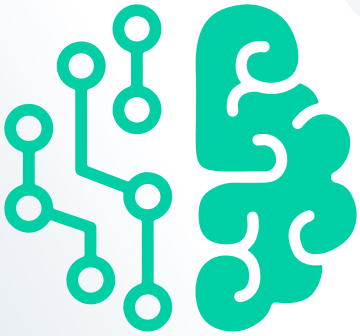
Resume

ARTIFICIAL VS. HUMAN INTELLIGENCE



AI can help in error reduction and elaborating the thousands of variables in SP:

- IDENTIFYING INSTRUMENTS THAT ARE MORE LIKELY TO REQUIRE EXTRA ATTENTION DURING CLEANING AND STERILIZATION ALLOWS TECHNICIANS TO PRIORITIZE INSTRUMENTATION AND ENSURE THEY ARE PROPERLY REPROCESSED
- MONITORING THE STERILIZATION PROCESS TO ENSURE INSTRUMENTS ARE PROPERLY STERILIZED BEFORE USE
- MONITORING STERILIZATION EQUIPMENT TO ALERT TECHNICIANS IF THERE ARE FAULTS IN THE PROCESS

AI can help in error reduction and elaborating the thousands of variables in SP:

AI CANNOT REPLACE THE EXPERTISE OF HUMAN HEALTHCARE PROFESSIONALS IN STERILE PROCESSING. TECHNICIANS RELY ON THEIR TRAINING, EXPERIENCE, AND JUDGMENT TO ENSURE THAT INSTRUMENTS ARE PROPERLY PROCESSED AND READY FOR USE. AI CAN PROVIDE VALUABLE INSIGHTS AND SUPPORT, BUT IT IS ULTIMATELY UP TO TECHNICIANS TO ENSURE THE INSTRUMENTS ARE CORRECTLY PROCESSED.

01 HTA is a valuable tool in addressing MD reprocessing. It is a multidimensional and evidence-based approach.

02 Reprocessing efficiency depends of effective management of the multiple productive assets (staffing, planning, equipment, instruments) involved.

03 Productive efficiency is achieved by increasing the output/input ratio, therefore reducing materials, time, staff required and/or increasing the throughput.

04 Economic efficiency is achieved by reducing the costs associated with productive assets and retaining inventory value of the istruments.

05 Technological advances can improve efficiency through data management and error reduction.

Take home MESSAGES

THE ROLE OF **HEALTH TECHNOLOGY ASSESSMENT** IN **MD REPROCESSING EFFICIENCY**

References:

1. European Commission – Public Health: https://health.ec.europa.eu/health-technology-assessment/overview_en 2. Walley (2017) - https://www.open.edu/openlearn/money-business/business-strategy-studies/introduction-operations-management/content-section-2 3. N. Scheinberg - Center for Healthcare Engineering & Patient Safety - University of Michigan - A Systematic Approach to Improving the Reprocessing of Surgical Instruments 4. The AdHopHTA handbook: a handbook of hospital-based Health Technology Assessment (HB-HTA), AdHopHTA project partners, 2015 5. WHO Global Guidelines for the Prevention of Surgical Site Infection (2018), Figure 3.3.2. The cycle of decontamination of a reusable surgical instrument, pag. 49 6. Virginia Mason Institute (2021) - Case Study | Surgical Setup Reduction Improves Patient Outcomes 7. AR Dyas - Reducing cost and improving operating room efficiency: examination of surgical instrument processing - Journal of Surgical Research (2018) 8. J Toor - Optimizing the surgical instrument tray to immediately increase efficiency and lower costs in the operating room - Can J Surg April 12, 2022 65 (2) E275-E281 9. R Kinney – UltraClean Systems - Balancing Technology and Humanity (2023) 10. https://www.getinge.com/us/insights/articles/digital-health/now-ai-can-help-you-to-make-ors-more-productive/ 11. https://www.steelco-group.com/technology/surgical-instrument-scanner/

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QUESTIONS & ANSWERS

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WEBINAR SERIES#4

THE PURPOSE OF THE WEBINAR WAS TO HAVE A GENERAL OVERVIEW OF

"Health Technology Assessment role on MD Reprocessing efficiency".

HTA ROLE ON MD REPROCESSING, HTA APPLICATIONS, EXAMPLES FOR EFFICIENCY AND THE FUTURE AHEAD.

Attendees were asked to answer to several polls during this webinar.

WHAT DOES HEALTH TECHNOLOGY ASSESSMENT (HTA) PROVIDE?

- 50% Evidence for decision making
- 38% Clinical and technological analyses
- 13% Economic evaluations

WHAT ROLE CAN HTA PLAY MD REPROCESSING EFFICIENCY?

- 29% Reducing reprocessing costs
- 57% Making evidence based decisions
- 14% Reducing reprocessing time

IN IMPROVING EFFICIENCY WHICH FACTORS SHOULD BE ASSESSED?

- 92% Both
- 8% Outputs
- 0% Inputs

HOW CAN NEW TECHNOLOGIES HELP TO IMPROVE EFFICIENCY IN MD REPROCESSING?

- 33% Tracking data
- 48% Automating processes
- 10% Assisting operators
- 10% Making predictions

2023

WEBINAR SERIES#4

Efficiency in Medical Devices reprocessing: THE ROAD AHEAD

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WEBINAR 5

MODERATOR

Dr. Carlos Palos

IT WAS A PRIVILEGE TO BE THE SCIENTIFIC DIRECTOR OF THIS WEBINAR SERIES, **"IMPROVING EFFICIENCY IN MD REPROCESSING: THE ROAD AHEAD"**. I WANT ALSO TO THANK ALL MY COLLEAGUE SPEAKERS THAT ENTHUSIASTICALLY ANSWERED TO THE CALL, DESPITE THEIR TIME CONSTRAINTS AND FINALLY, TO ALL THE ATTENDEES THAT ACTIVELY PARTICIPATED IN THE WEBINARS.
THE SUBJECTS COVERED AND THE QUALITY OF THE SPEAKERS CONTRIBUTED TO AN ENTHUSIASTIC ATTENDANCE AND PARTICIPATION OF ATTENDEES FROM SEVERAL COUNTRIES AND PROFESSIONS.
THE RECEIVED FEEDBACK WAS A MAJOR STIMULUS FOR THE TEAM INVOLVED IN CONCEPTION AND PRODUCTION OF THE WEBINARS.

ONCE MORE, I WANT TO EXPRESS MY GRATITUDE TO ASP TO ITS ONGOING EFFORTS IN THE EDUCATION OF PROFESSIONALS MOVING TOWARDS BETTER SAFETY, QUALITY, SUSTAINABILITY AND EFFICIENCY.

Dr. Carlos Palos
Grupo Luz Saúde,
Lisbon Infection Control & Antimicrobials Resistance National Coordinator & Scientific Director for this ASP SUMMIT CME Webinar 3rd Series

Round Table

THE 5TH **WEBINAR** TOOK PLACE ON JANUARY 2024, COUNTING WITH ALL THE SPEAKERS.

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Conclusion

Improving efficiency in healthcare must be seen as a cornerstone to to healthcare systems.

The systematic adoption of efficent processes and practices in the case of medical devices reprocessing allows healthcare systems to be more cost-effective, safe, competitive and sustainable.
Several steps, diverse technologies, and different players are involved in the complex process of medical device reprocessing, requiring, proficient human resources and good health technology assessments.
From a perspective of risk and patient safety, efficiency could indirectly contribute for the reduction of healthcare associated infections, in particular those related to surgery and minimally invasive procedures.
Achieving efficiency in medical devices reprocessing requires interventions in the different phases of the recycling circle, starting with adequate selection of instrumental and equipments.
Health Technology Assessment must be seen as a major tool for improving efficiency by measuring how changes in the process or the ontroduction of novel methods compare to current practice.
The adoption of LEAN principles improves quality and standardization of procedure and processes, allowing the reduction of the production of waste generated in the operating rooms.
CSSD are essential to achieve efficient medical device reprocessing. Certification is a motor to improve medical devices reprocessing efficiency. The development and adoption of data management systems that analyze operations allows a better knowledge that allow corrective interventions whenever they are needed.
Automation and robotization in the CSSD, which contribute to the reduction of human error and increased speed, quality and efficiency, are doing important steps.
The road is ahead!

Dr. Carlos Palos

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