**COMPLIANCE TO BUNDLES ELEMENTS** 

# FOR PROCESSING MEDICAL DEVICES

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## INTRODUCTION

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Compliance assessment to different activities included in medical devices (MD)/ health products processing should be a routine activity to improve processes<sup>1</sup>. Healthcare acquired infection prevention traditional resources such as bundles (straightforward sets of evidence-based practices that, when performed collectively and reliably, have been proven to improve patient outcomes in infection control) include different steps that require actions of greater or lesser complexity to be performed<sup>2</sup>.

**OBJECTIVE** - To identify the compliance to the technical and socio adaptive elements of bundles for Central Service Supply Department (CSSD) as well to evaluate the reasons for compliance or not compliance. Studying reasons for joining the professionals to the processes has not yet been carried out.

#### METHODS

**An** enquiry based on a previous study <sup>3</sup> was carried out with 60 invited nursing professionals that directly perform some processing activities of medical devices in a CSSD's hospital. According to the answers of the reasons for compliance the steps (or elements) were classified as socio adaptive ( if membership depends on team decision and / or has impairment due to lack of structure) or technical elements (if to follow the rules depends only on personal decision).

Form research (Apendix) consists of closed questions, previously selected from the previous study <sup>3</sup> and open spaces. The criteria for inclusion of one element to include a question in the form were those that should be performed directly by the respondent professionals.

The Lickert scale was used to know the compliance in a 5 options (ALWAYS, Almost always, Sometimes ,Almost never , NEVER ).

**The reasons** for joining or no compliance to each step should be justified in open spaces. The analysis is quanti qualitative by Bardin's content method. It constitutes the method of assessing the reasons for adherence or not. The items included in the form sometimes is not used by all countries or follow international area standards, because they are included <sup>3</sup> once are supported by the national legislation. Santa Casa Ethics Comitee Comitee and Federal Unviersity Rio Grande do Sul Nursing School aproved the

#### research project. RESULTS AND DISCUSSION





The answers justified just few elements. Categories identified are Structure, personal aspects, feelings, routine, knowledge and others. 825 answers 632(76,6%) compliance.

p<0,05 Qui square= 34,3548.

Most of the elements or steps that make up the process and that are actually carried out are simple and are traditional and routine activities in **Sterilization\* and Preparing \*** area.

Some of the steps are not performed because they are not considered important by the person performing them. Among the socio adaptive elements, the structure items stand out. The technical elements are basically related to the knowledge and fulfillment of the routine\*\*.

The different steps of the bundles may vary according to CSSD planning. Institutions with more resources have more infrasetructure\*\* to develop the process with higher quality. The results of the categories show that the elements considered traditional are followed<sup>3,4</sup>. Others considered important are often not realized.

Table – Compliance with questions about bundle elements, 2018	n	%
Cleaning1 Do you		
wear face shield or protective maskuse of Personal Protective Equipment in this area?	43	91
**discard detergent solution at each use	21	47
do surface disinfection routine systematically carried out as per written protocol?	34	72
Cleaning 2 Do you		
use inputs (e.g., brushes) compatible for pre-cleaning (according to lumens, air and water pistols, flowing steam)?	45	96
use proper detergent for medical devices with record of opening date (enzymatic, alkaline,neutral, among others proper for MDP)?	46	98
use specific device for cleaning/drying of lumen items?	46	98
** use purified water to rinse critical products.	23	53
Overhaull Do you		
**do annual visual acuity exam on 6/6 months basis?	25	54
verify cleaning and integrity of medical devices with a magnifying lamp or microscope for products with details of difficult visualization?	40	85
use medicinal compressed air pistol to complement drying in the area of inspection?	44	94
lubricate with standardized oil-free product to instrumental use of joints for better medical device performance?	36	77
follow protocol use test to verify the functionality of scissors and <i>clamps</i> ?	33	72
*Preparing Do you		
use PPEs (Mask, cap, and gloves) in the area of preparation and packaging area?	44	94
clean and disinfect surfaces according to an established routine?	38	81
*Sterilization and storage Do you		
believe that sterilization area has thermal comfort for the operator?	-	-
follow scheduled and record of cleaning equipment, as well as clean and preserved equipment?	38	81
verify of Sterile Barrier System (SBS) integrity before storing medical device pack and when at the moment of their distribution to the user units?	37	95
dispose medical devices stored so as not to damage SBS?	39	98
Total (N= 825)	632	-

### Conclusion

The reasons for the lack of compliance to the processing steps are related to investiments needed for upgrade existing infrastructure. Knowledge of the process and the filling that to do the correctly the job, as well as the personal aspects of the professionals who perform them are the reasons related to adherence. It is suggested that these elements be used by the different institutions so that the processes can be improved as well as directing the necessary financial investments to the structure and education. **References:** 

1.Dixon-woods, M, Bosk, CL, Aveling E L, Goeschel CA. and Pronovost P. J. Explaining Michigan: Developing an Ex Post Theory of a Quality Improvement Program. Milbank Quarterly. 2011; 89: 167–205. doi:10.1111/j.1468-0009.2011.00625.x

2.Resar R, Griffin FA, Haraden C, Nolan TW. Using Care Bundles to Improve Health Care Quality. IHI Innovation Series white paper. Cambridge,

Massachusetts: Institute for Healthcare Improvement; 2012. Available on www.IHI.org on: Jan 22th 2019.

3.Hoefel, H. H. K.; Pozzer, C. E., Dossa A, Acuna A, Rabaioli C, Schneider D, Gonzatti J,Arsego M, Castro ME, Pfitsher M, Bernardo R, Oliveira T. Bundles For The Central Sterile Supply Department. AJIC-D-19-00090R1. 2019. In press.

4. Seavey, R. High-level disinfection, sterilization, and antisepsis: current issues in reprocessing medical and surgical instrumentsAm J Infect Control;2013: 41(5), S111-S117.