



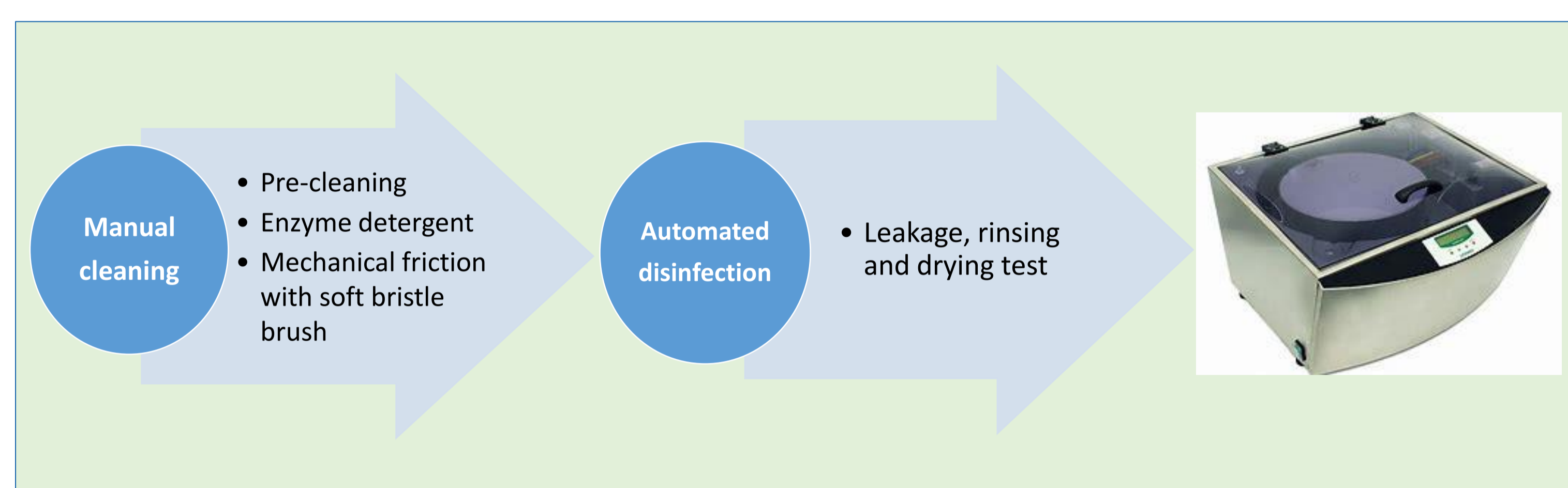
Comparison of two active principles for flexible endoscope disinfection: peracetic acid and chlorine dioxide

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INTRODUCTION

The environment of healthcare facilities as well as the medical devices used in procedures can function as reservoirs or fomites, allowing the transmission of pathogens. Therefore many publications have emphasized the importance of high-quality cleaning and disinfection of flexible endoscopes, as well as the choice of the best method to achieve this goal. The strict adherence to guidelines is necessary since more outbreaks have been associated with improperly cleaned or disinfected endoscopes subjected to high-level disinfection than any other medical device.

Even using the recommended cleaning processes and germicidal manufacturers' guidelines, variations in everyday practice can affect the effectiveness of endoscope processing. So it's important that the services evaluate the endoscope disinfection process. ATP (adenosine triphosphate) is used as indicator of organic and microbiological contamination. ATP measurement may be a suitable method to control the quality of endoscope reprocessing as it is measuring cleaning effectiveness which may indicate the reduction of infection risk.



RESULTS

- 41 disinfections with product A
- 14 disinfections with product B

Product A	Before manual clean: 20 a 8626 RLU	After disinfection: 0 a 31 RLU
Product B	Before manual clean: 245 a 6243 RLU	After disinfection: 2 a 76 RLU

OBJECTIVE

To compare the antimicrobial efficacy of two chemical formulations used for disinfection of endoscopes at Sabará Children's Hospital, a medium-sized pediatric hospital in the city of São Paulo, Brazil.

MATERIALS / METHODS

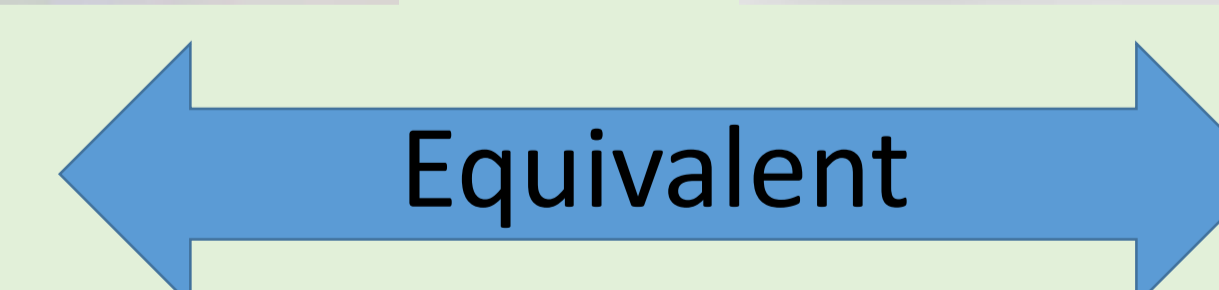
- Cross-sectional field study with a quantitative approach.
- Sample: two pediatric flexible endoscopes with irrigation and suction channels (diameter of 2.8mm) and one neonatal flexible endoscope (diameter of 2.2mm).
- Product A: 0,20% (w/w) liquid peracetic acid
- Product B: liquid carbon dioxide, stabilized in 7% aqueous solution

Time • The two products were tested for 30 days

Test • ATP bioluminescence – prior to each manual cleaning procedure and after complete disinfection. Bioluminescence readings were expressed as relative light units (RLU)

CONCLUSION

Antimicrobial efficacy of both products was confirmed when using automatic processors and adherence to all processes steps.



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