

POSTER PRESENTATION

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# Surgical hands antisepsis with alcohol-based preparations: cost-effectiveness, compliance of professionals and ecological benefits in the Brazilian healthcare scenario

ME Graf<sup>1\*</sup>, A Machado<sup>2</sup>, LL Mensor<sup>3</sup>, D Zampieri<sup>3</sup>, R Campos<sup>3</sup>

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## Introduction

Surgical hands disinfection with alcohol-based handrub preparation effectively removes Gram-positive and Gram-negative organisms (including multi-resistant ones), as well as fungi and viruses. Evidence allows concluding that alcohol-based handrub preparation can replace the alternatives traditionally applied such as chlorhexidine and promote reductions in associated costs, including indirect ones such as water supply and brushes disposal.

## Objectives

To assess the cost-effectiveness of surgical hands disinfection technique with alcohol-based handrub preparation versus scrubbing with chlorhexidine under the perspective of Brazilian hospitals.

## Methods

Cost-effectiveness analysis through a decision model by comparing the two techniques for surgical hands disinfection:

- Use of alcohol-based handrub preparation (Softalind<sup>®</sup> Pure, B. Braun Medical AG),
- Scrubbing with chlorhexidine brushes. Outcomes considered were reduction of microbial counting (clinical scenario) and water savings (ecological scenario).

Economic outcomes were direct medical costs and indirect costs (water consumption)

## Results

Total costs of the technique with Softalind<sup>®</sup> Pure was 46% lower than the costs of the technique with chlorhexidine

brushes. Additionally, the clinical scenario has shown superior effectiveness for the alcohol-based handrub preparation, due to the higher in vitro microbial counting of 23% than its comparator. In the ecological scenario, the reduction of 18,5 liters of water per procedure with the use of alcohol-based handrub preparation generates cost savings besides the saving in the water consumption itself.

## Conclusion

The present evaluation pointed out several advantages for the use of alcohol-based handrub preparation for surgical hands disinfection. Among them the significant reduction in microbial counting, improvements in compliance of professionals due to less time for preparation (1 minute for alcohol-based preparations vs. 3 minutes for scrubbing with chlorhexidine) and less irritant effect under the skin, besides great savings in costs and water consumption and brushes disposal.

## Disclosure of interest

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## Authors' details

<sup>1</sup>Infectious Diseases and Infection Control, Hospital UniversitárioCajuru PUCPR, Curitiba, Brazil. <sup>2</sup>Infectious Diseases and Infection Control, BeneficênciaHospitais, Brazil. <sup>3</sup>Laboratórios Braun, Brazil.

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<sup>1</sup>Infectious Diseases and Infection Control, Hospital UniversitárioCajuru PUCPR, Curitiba, Brazil

Full list of author information is available at the end of the article