

POSTER PRESENTATION

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Residual antiseptic efficacy of octenidine dihydrochloride versus chlorhexidine gluconate in alcoholic solutions

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From 3rd International Conference on Prevention and Infection Control (ICPIC 2015)
Geneva, Switzerland. 16-19 June 2015

Introduction

Skin antiseptics are an important measure to prevent post-operative infections. It is known that wound infections infringe the well-being of the patient and prolongs the rehabilitation significantly. At the same time additional costs will be caused in the health care system. Alcohol-based solutions containing the active ingredients chlorhexidine gluconate [CHX] or octenidine dihydrochloride [OCT] have a residual antimicrobial effect on skin. This may result in a better preventative outcome than alcohol alone.

Objectives

The aim of the presented study was to compare the immediate and long-term efficacy of CHX and OCT.

Methods

We performed a study on the skin on the arm of 20 healthy volunteers in a cross-over design based on DGHM-standard method 13 and measured the colony forming units (cfu) of the resident skin flora after the application of the products according to Williamson and Kligman (1965). The cfu were determined directly after the application and after 24 h on 5 consecutive study days. The calculated log reduction factors were statistically evaluated with the student's t-test.

Results

Both solutions showed as expected a significant and quick reduction of the resident skin flora and a long-term effect over 24 h. For OCT a statistically significant superior long-term effect after four applications was determined (lg reduction: (2.21 vs. 1.37; $p = 0.004$).

Conclusion

The presented data show that alcoholic solutions with octenidine dihydrochloride and chlorhexidine gluconate show a comparable efficacy on the resident skin flora. Alcohol-based preparations with the additional active octenidine dihydrochloride are a valid alternative for skin antiseptics to the world-wide broadly used CHX-based products.

Disclosure of interest

F. Brill Grant/Research support from: partially by Schülke & Mayr, Germany., N. Radischat Employee of: Schülke & Mayr, Germany., P. Goroncy-Bermes Employee of: Schülke & Mayr, Germany., J. Siebert Employee of: Schülke & Mayr, Germany.

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Published: 16 June 2015

doi:10.1186/2047-2994-4-S1-P33

Cite this article as: Brill et al.: Residual antiseptic efficacy of octenidine dihydrochloride versus chlorhexidine gluconate in alcoholic solutions. *Antimicrobial Resistance and Infection Control* 2015 **4**(Suppl 1):P33.

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