

Research Compact

Tags Preventive Washing, MDRO, intensive care

Title **Effect of daily antiseptic body wash with octenidine on ICU-acquired bacteremia and ICU-acquired multidrug-resistant organisms (MDRO) in intensive care units (ICU) – a multicentre, cluster-randomised, double-blind, cross-over study**

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Source Preliminary Analysis, presentation on DGHM congress 2022, Abstractbook, [LINK](#)

Aim of the study The risk of primary bacteremia or multi-drug resistant organism (MDRO) acquisition is especially high in intensive care patients and can influence morbidity, mortality, length of hospital stay and treatment cost. Hence, the prevention of these healthcare-acquired complications is of high interest. The EFFECT study – a multicentre, placebo-controlled, cluster-randomised, double-blind, cross-over study – evaluated the preventive effect of octenidine-containing wash mitts* on primary bacteremia and MDRO acquisition in intensive care units (ICUs). A preliminary analysis of the results was presented on the scientific DGHM congress on 6th September 2022 in Berlin.

Methods The rates of nosocomial primary bacteremia and MDRO acquisition using octenidine-containing wash mitts* and placebo were compared. 44 ICUs in 23 German hospitals were compared to themselves over a 30 months time-period (3 months wash-out phase, followed by 12 month intervention and observation phase for each type of wash mitt). Randomization concerned only the order in which octenidine- and placebo wash mitts were used. The two co-primary endpoints were ICU-acquired primary bacteremia and ICU-acquired MDRO. More information can be found in the publication of the study design: [10.1136/bmjopen-2017-016251](https://doi.org/10.1136/bmjopen-2017-016251)¹

Results In total a dataset of 104,039 ICU episodes from 93,438 patients and 1,128,777 microbiological test results was generated. These data were filtered for ICU stays of more than 2 days. A statistically highly significant result favoring the octenidine-containing wash mitts* was found for ICU-acquired primary bacteremia. A **risk reduction of 17%** with a hazard ratio of 0.828, a 95% confidence interval of [0.748 ; 0.918] was demonstrated (p = 0.00032). However, no statistically significant result favoring either placebo or octenidine-containing wash mitts was found in regard to MDRO-acquisition

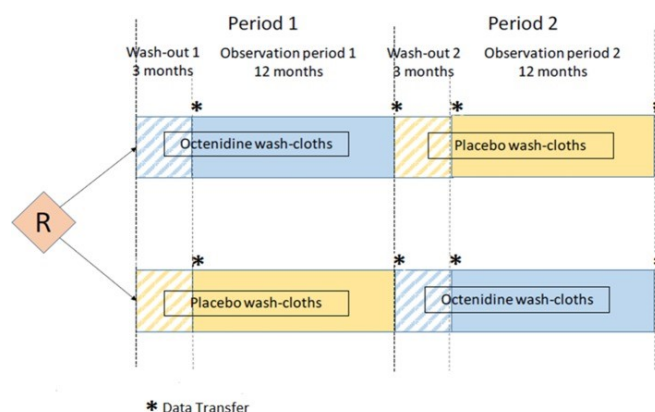


Figure: Flowchart of the EFFECT study design showing the timepoint of randomization (R), the wash-out and observation periods as well as the cross-over design. Source: [10.1136/bmjopen-2017-016251](https://doi.org/10.1136/bmjopen-2017-016251)¹

Conclusion **Daily use of octenidine-containing wash mitts* reduces the risk of ICU-acquired primary bacteremia by 17%. Octenidine is a highly viable alternative to traditional washing in intensive care units**

* octenisan® wash mitts, 1: Meißner et al, 2017, BMJ Open