

Abstract video clip: Hospital Lüneburg is the pioneer for our hand hygiene monitoring "NosoEx". The video shows how our technology is used in this German hospital. The infection control officer provides insights from the pilot project. The disinfectant use has been increased by 35%. That growth was important because the dispensed amount has been below the average on certain hospital wards. Moreover, feedback regarding the hand hygiene behavior can be provided more targeted due to the job group based monitoring. Exemplary groups can be physicians, nurses and therapists. Consequently, individual healthcare-workers are not monitored what makes NosoEx data protection law compliant. Furthermore, the monitoring of the dispensers is based on sensors that are added to the existing dispensers (retrofit approach). To sum it up, NosoEx can be seamlessly integrated in the infrastructure and routines of the hospital.

Disclosure of Interest: None declared

Poster session: Chlorhexidine-based antiseptics

P502

THE BENEFIT OF PREOPERATIVE WASHING WITH CHLORHEXIDINE GLUCONATE-IMPREGNATED CLOTHS ON THE INCIDENCE OF SURGICAL SITE INFECTIONS: A SYSTEMATIC REVIEW

V. Forget¹, O. Azzam², C. Terreaux-Masson², M.-R. Mallaret², C. Khouri², C. Landelle²

¹Infection Control Unit, Centre hospitalier metropole savoie, Chambéry;

²Infection Control Unit, Grenoble Alpes University Hospital, Grenoble, France

Correspondence: V. Forget

Antimicrobial Resistance and Infection Control 2019, **8**(Suppl 1):P502

Introduction: Preoperative washing with plain or antimicrobial soap is recommended by the World Health Organization (WHO) for the prevention of surgical site infections (SSI). WHO did not formulate recommendation on the use of chlorhexidine gluconate (CHG)-impregnated cloths because of limited and low quality evidence.

Objectives: The purpose of this systematic review was to evaluate the benefit of preoperative washing with CHG-impregnated cloths on the incidence of SSI.

Methods: The PICO methodology was used. Randomized controlled trials (RCT), quasi-randomized, case-control and cohort studies on patients with surgery (Population) having preoperative washing by CHG cloths (Intervention) or antiseptic soap, plain soap, placebo, no washing, no washing instruction (Comparator) were included. The principal Outcome was the SSI occurrence. Publications were searched on Medline, CENTRAL, Web of Science, Clinical Trial between 01/01/1990 and 30/06/2018. The quality of the studies was assessed with the Cochrane and Newcastle-Ottawa tools, the quality of evidence with the GRADE method. Statistics were performed on RevMan5.3.

Results: A total of 1108 publications were identified, 3 were included: 1 RCT and 2 prospective cohort studies. The meta-analysis of the 2 cohort studies comparing the effect of preoperative bathing with CHG-impregnated cloths the evening and the morning before intervention to noncompliance with preoperative washing showed an Odds-ratio (OR) equal to 0.25 (95%CI [0.13-0.50], $p < 0.0001$). The RCT showed an OR equal to 0.12 (95%CI [0.02-1.00], $p = 0.05$) for CHG-impregnated cloths the evening and the morning before intervention versus a shower with antibacterial soap the evening before the intervention.

Conclusion: Studies quality was high but concern orthopedic surgery only. The available studies show a benefit for CHG-impregnated cloths on SSI occurrence, but without comparison with usual practices (antiseptic or plain soap washing the evening and/or the morning before intervention). Further studies are needed to confirm the CHG-impregnated cloths benefit for the preoperative washing.

Disclosure of Interest: None declared

P503

THE USE 2% CHLORHEXIDINE GLUCONATE IMPREGNATED CLOTH X 2% CHLORHEXIDINE GLUCONATE LIQUID AS REDUCTION OF SKIN MICROORGANISMS COUNT: INTEGRATIVE REVIEW

F. D. O. Andrade¹, V. D. B. Poveda², R. T. N. Turrini³

¹Nursing, Hospital of Clinic of Federal University of Parana, Curitiba;

²Nursing, School Nursing of University of Sao Paulo; ³Nursing, School of Nursing of University of Sao Paulo, Sao Paulo, Brazil

Correspondence: F. D. O. Andrade

Antimicrobial Resistance and Infection Control 2019, **8**(Suppl 1):P503

Introduction: Surgical site infections are considered one of the largest and most important postoperative complications, with preoperative bath being one of the stages of surgical preparation and aimed at reducing surgical risk by reducing microbial counts of the skin, acting as a coadjuvant in the prevention of infection of the surgical site.

Objectives: To compare and evaluating the efficacy of 2% chlorhexidine gluconate-impregnated cloth and pre-operative 2% chlorhexidine gluconate liquid in reducing the microorganisms of the skin in adults.

Methods: This is an integrative literature review, performed through the databases: Virtual Health Library, Cranial, Cochrane, Embase, LILACS, PubMed and Scopus, using the keywords: antiseptics, chlorhexidine and preoperative period.

Results: 177 studies were included, of which 8 were included, observational or experimental, being 3 (37.5%) meta-analysis, 4 (50%) cohort, 1 (12.5%) randomized clinical trial, published between 2013 and 2017, in the English language, produced in the United States. In the analyzed studies, participants who used 2% chlorhexidine gluconate-impregnated cloth a greater reduction in the number of microorganisms in the skin compared to participants who used 2% chlorhexidine gluconate liquid. The authors note that this fact may be related to the persistence of 2% chlorhexidine gluconate in the skin, when used in the form of impregnated cloth.

Conclusion: Considering the infection of the surgical site as responsible for high morbidity and mortality and that the microbiota of the patient's skin is an important source for the development of this complication, the preparation of the skin should be the focus of attention of the health team. Therefore, new health care technologies need to be evaluated in relation to their cost-effectiveness and compared to existing practices, allowing health professionals to provide safer preoperative care.

Disclosure of Interest: None declared

P504

EFFECTIVENESS OF DAILY CHLORHEXIDINE BATHING TO REDUCE HOSPITAL ACQUIRED INFECTIONS AND COLONIZATIONS IN THE INTENSIVE CARE UNIT OF A TERTIARY CARE CENTER IN LEBANON

J. Tannous, N. K. Zahreddine, A. Ibrahim, R. Ahmadi, T. Kardas, S. Kanj

¹Infection Prevention and control, AUBMC, Beirut, Lebanon

Correspondence: J. Tannous

Antimicrobial Resistance and Infection Control 2019, **8**(Suppl 1):P504

Introduction: Preventing Hospital Acquired Infections is a major safety challenge involving labor-intensive efforts in intensive care units (ICUs).

Objectives: The purpose of this study was to evaluate the effectiveness of daily bathing with Chlorhexidine 4% (CHG) in controlling the spread of Multidrug-Resistant *Acinetobacter baumannii* (MDR-Ab) as well as reducing Device Associated Infections (DAI). This intervention was accompanied by other essential Infection Control (IC) measures such as adherence to hand hygiene, care bundle, and contact precautions.