

Methods: A committee of experts in environmental cleaning in resource-limited settings was convened to review current available best practices and standards from selected high-resource settings. Using a consensus-driven strategy, the expert committee identified and compiled the most relevant and feasible best practices for resource-limited settings.

Results: A best practices manual was developed and includes three major sections. The first describes best practices for environmental cleaning supplies and equipment, including guidance on the preparation and use of the most widely available and appropriate chemicals and equipment used in cleaning. The second section addresses environmental cleaning procedures in all major facility areas, including outpatient, general inpatient and specialized care wards. Detailed guidance and emphasis is placed on wards with increased healthcare-associated infection risk, such as maternity wards and intensive care units. The final section addresses implementation of environmental cleaning programs, including the importance of integration within IPC programs and the use of defined multi-modal strategies. A toolkit was developed which will guide the step-wise implementation of the best practices guidance.

Conclusion: Key resources for environmental cleaning in RLS were developed. They will be refined and updated through pilot evaluations, which will document usability, feasibility and impact on processes and health outcomes.

Disclosure of Interest: None declared

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EVALUATION OF OPERATING ROOM SURFACES CLEANING AND DISINFECTION BY VISUAL INSPECTION, MICROBIOLOGICAL ANALYSIS AND ADENOSINE TRIPHOSPHATE

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Introduction: The surface cleaning and disinfection in Operating Rooms (OR) is a main factor for environmental contamination control. In spite of this, the efficiency evaluation of environmental cleanliness is often based on visual inspection. Recently, quantitative methods for evaluating environmental cleanliness entered in debate, among them the bioluminescence Adenosine Triphosphate (ATP).

Objectives: To evaluate the presence of organic or biological material between cleaning and disinfection (CD) of the operating room by different monitoring methods: visual inspection, ATP and microbiological analysis.

Methods: This is a descriptive-exploratory quantitative study using visual inspection, ATP samples and microbiological culture as indicators for the evaluation of CD. The collection was performed before and after the CD of the following areas: anesthesia cart, electric scalpel, surgical table, circulating nurse table and infusion pump.

Results: 90 samples of ATP, 90 microbiological samples and 45 surfaces underwent visual inspection after CD on five surfaces from nine operating rooms were evaluated. There was a statistically significant reduction ($p < 0.0001$) of the ATP values in the periods before and after OR CD, with a mean reduction percentage of 92.6%. Regarding the visual inspection, 42 (93.3%) of the evaluated surfaces were considered clean and only three (6.7%) surfaces, namely electric scalpel, anesthesia car and surgical table were considered to be faulty. In the microbiological analyzes there was a reduction in the number of colonies of microorganisms identified in the evaluated surfaces.

Conclusion: The CD process reduced the microbial load and organic matter of the evaluated surfaces, demonstrated by the results obtained by the ATP and microbiological evaluation, but the visual inspection as a unique tool to evaluate the effectiveness of the cleanliness of surfaces,

may generate a false impression of clean environment. Although bioluminescence ATP is an interesting tool for assessing the quality of cleanliness, as well as an educational measure by demonstrating results that are quickly understandable to the team, its high cost may be an inhibiting factor for its implementation in many Brazilian hospitals.

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THE USE OF ATP SURFACE TESTS TO EVALUATE THE CLEANLINESS OF TOILETS IN HOSPITAL ROOMS

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Introduction: Outbreaks with intestinal bacteria, such as *Clostridium difficile* or carbapenamase producing *Enterobacterales*, suggest that toilets can play a role in the spread of these microorganisms (patient to patient transmission). In that respect, toilet cleanliness is very important and should be evaluated by the hospital infection control team.

Objectives: With this study, we aim to evaluate the cleanliness of the toilets in our hospital by using ATP surface testing.

Methods: Within the context of the European consortium project i-4-1 health, ATP tests (3M) on patient care materials and environmental surfaces were performed and revealed a very high bioburden in the toilets of our hospital. This observation incited us to further evaluate the cleanliness of all patients toilets on 4 patients wards using ATP surface tests. We compared the effect of cleaning products, age of the toilets and sampling location within the toilet bowl.

Results: We sampled 90 toilets below the rim, since that's the hardest reachable area for cleaning. 98% of the samples showed ATP values of more than 10.000 RLU, classified as heavily soiled. Further investigation showed no difference between cleaning products (10 samples). There was also no difference between older or more recent toilets (10 samples). The results were mainly determined by sampling location, with very high values below the rim and, in contrast, good results on other surfaces of the bowl. Evaluation of 1 rim free toilet in parallel with a standard toilet clearly showed the benefits of the first.

Conclusion: We demonstrated the usefulness of ATP tests in evaluating the cleanliness of toilets. Overall the toilets were clean (low ATP value), with the exception of the rim of the toilets which had a very high bioburden. This can probably be explained by biofilm development and contamination on the rough surface below the rim, which can pose a risk to patients. The use of rim free toilets should be considered.

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PRACTICE-LIKE VIRUCIDAL EFFICACY EVALUATION OF DISINFECTANT WIPES: USA VS. EUROPE

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Introduction: Application of disinfectant wipes in hospitals are a major measurement for infection prevention. These wipes should be able to inactivate viruses on environmental surfaces and to prevent virus transfer.

Objectives: The aim of this study to present a practice-like alternative to the ASTM E2967-15 wiperator method based on EN 16615, a