

# Cleanliness of portable medical equipment disinfected by nursing staff

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## ABSTRACT

Increased attention has been focused on disinfection by housekeepers, but very little data is available on disinfection of equipment by nurses. Pathogens can reside on shared patient care equipment surfaces, across the healthcare environment. Although protocol and outline of the division of labor across departmental lines for specific tasks may exist, monitoring and providing feedback and improvement can help mitigate risk of pathogen transmission.

## BACKGROUND

Current guidelines recommend that non-critical patient care equipment, defined as medical equipment that comes into contact with intact skin, is cleaned and disinfected between patients' use. This study assessed the cleanliness of mobile rolling blood pressure units between patients' use.

## STUDY

In unannounced visits, mobile medical equipment used to take patient' vital signs were sampled for cleanliness by using adenosine triphosphate (ATP) bioluminescence assay system and aerobic cultures (ACCs). The following sites were tested: control button on the blood pressure unit, electronic thermometer, blood pressure cuff, machine handle, and pulse oximeter.

## RESULTS

ATP bioluminescence assays and ACCs revealed that certain mobile equipment are often contaminated with organic material and may be contaminated with aerobic

bacteria. The study showed a wide variation in cleaning results despite policies clearly delineating nursing staff as being responsible for the disinfection of such items.

## STUDY CONCLUSION

The results of the study identified significant gaps in the cleaning and disinfection of mobile medical equipment. ATP readings that were extremely high revealed that items had not yet been sufficiently disinfected between patients' use. These findings suggest the need to implement systems to improve disinfection of mobile equipment. Previous studies demonstrated that education and feedback, using a quantitative method to monitor performance, led to improved disinfection by the organizations housekeeping staff and could be a useful tool to improve compliance in cleaning and disinfection of shared patient care equipment by nursing staff.

## REFERENCE

Havill NL, Havill HL, Mangione E, Dumigan DG, Boyce JM. (2011). Cleanliness of portable medical equipment disinfected by nursing staff. AJIC. 39(7): 602-4.