

New Pressure Cuff Liner as an Adjunct to Infection Control Measures Aides in Reduction of Organism Transmission

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Introduction: Frequent complications seen among diabetic lower extremity ulcer patients include angiopathy (Peripheral Arterial Disease), and compromised immune systems that lower thresholds for infections by common pathogens. In many wound clinics, blood pressure cuffs are washed or wiped with alcohol at the end of the day, leaving the possibility of cross-contamination from wound drainage among the patients tested throughout the day. A new, single-use, disposal blood pressure cuff liner to minimize cross-contamination risk is now commercially available, and was tested with common bacteria.

Methods: Bench testing was conducted to assess the effectiveness of the SensiShield pressure cuff liner (Väsamed, Eden Prairie, MN) to limit contamination. A cell suspension concentration of *E.coli* and *P.aeruginosa* was placed directly upon the SensiShield test articles. The contaminated SensiShields were then placed atop Plate Count Agar plates (PCA-plates) and incubated. Results were evaluated at 72-hours and at 120-hours.

Results: The SensiShield test articles formed a barrier between the cell suspension (population of 1.2×10^6 /ml) and PCA-plates. After 72 hours in a 37°C incubator, no bacterial growth was observed on the PCA-plates. Following an additional 48-hour, 37°C incubation period, PCA-plates remained free of bacterial growth demonstrating the liner to be an effective barrier against the identified bacteria.

Conclusion: In the clinical setting, it is imperative to avoid cross-contamination of medical devices among the wound patients treated. This bench data suggests the SensiShield cuff liner may provide a solid barrier against common bacteria, and should be employed at all times for the best practice of infection control.