

**ANTIMICROBIAL PROTECTION USING STAT-BLOC™ TABLE SHEETS**

**ENVIRONMENTAL PROTECTION FOR PATIENT SAFETY**

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Healthcare associated infections (HAIs) result in increased morbidity, mortality and cost. The CDC reports that one in 20 patients is affected by an HAI each day and that more than 30 billion dollars are spent each year on these complications. A recent study found that surgical site infections (SSIs) were the most common healthcare associated infection, accounting for 31% of all HAIs among hospitalized patients globally. Treatment of each SSI has been averaged at \$10,000-\$25,000. Organisms responsible for HAIs have been linked to patients, healthcare workers, invasive lines, equipment and environmental factors. Environmental factors include contaminated hospital privacy curtains, air vents and patient contact surfaces such as OR beds and examination tables. As clinicians, it is our responsibility to examine all avenues of HAI reduction including these environmental factors.

Ansell offers a unique solution that provides antimicrobial protection for operating room beds and mattresses. STAT-BLOC table sheets utilize patent pending technology that incorporates broad spectrum coverage using Triclosan into the contact surface of the table sheet. This barrier layer is made of a linear low density polyethylene material with a high coefficient of friction. Prior to our own laboratory validation of the efficacy of STAT-BLOC table sheets at providing strike-through protection, the antimicrobial properties of the product were reviewed.

Private laboratory testing (WuXi AppTec and NAMSA) against representative organisms was performed using AATCC Test Method 100 for assessment of antibacterial finishes on textile materials. Summarized testing results show the following:

*Escherichia coli* (E. coli) (ATCC 8739) with an initial inoculum of  $1.9 \times 10^6$  with standard 24 hour contact time with STAT-BLOC™ table sheets: >99.99% reduction\*

*Staphylococcus aureus* (MRSA) (ATCC 33591) with an initial inoculum of  $1.7 \times 10^6$  with standard 24 hour contact time with STAT-BLOC™ table sheets: >99.99% reduction\*

*Klebsiella pneumoniae* - Carbapenem resistant (CRE) (ATCC 4352) with an initial inoculum of  $5.4 \times 10^5$  with standard 24 hour contact time with STAT-BLOC™ table sheets: >99.98% reduction\*

Following this review, clinical relevance testing was performed to evaluate the efficacy of STAT-BLOC table sheets to provide true antimicrobial protection for operating room mattresses. Sixty ml's of a solution containing  $1 \times 10^7$  mixed enteric

organisms was placed on five marked areas of the STAT-BLOC table sheet and standard OR linens covering a new, culture negative OR mattress and allowed to dwell for 2 and 4 hour time periods. Swab cultures were then taken of the mattresses and evaluated for viable bacterial contamination. All areas below the STAT-BLOC table sheets appeared dry and cultures grew only two CFU's per spot tested. The areas below the standard OR linen sites were visibly wet at 2 hours but appeared dry at four hours. The two hour cloth site samples grew an averaged  $9 \times 10^5$  organisms and the four hour cloth site samples grew an average  $7 \times 10^4$  CFU's.

### Clinical Importance

Organisms responsible for HAIs have the ability to survive on hospital surfaces for significant periods of time. These organisms can be transferred to other patients as well as healthcare workers. Every effort to reduce the risk of this transfer must be undertaken in an ongoing effort to improve patient safety.

STAT-BLOC table sheets provide broad spectrum antimicrobial protection including organisms with antibiotic resistance. This protection has now been documented in basic laboratory and clinical relevance testing. Clinicians should consider the use of the product in clinical scenarios where contaminated fluids may come in contact with surfaces that also have patient contact.

\*Data on file.

Roger Huckfeldt, MD has performed paid consulting work for Ansell and/or its affiliates.

STAT-BLOC™ antimicrobial table sheets are not available for sale outside of the United States.

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