

## Literature review

# Impact of an antimicrobial-impregnated gauze dressing on surgical site infections including methicillin-resistant *Staphylococcus aureus* infections

Mueller SW, Krebsbach LE. *Am J Infect Control*. 2008 Nov;36(9):651-655.

**Summary:** A retrospective surgical site infection surveillance study was conducted by Bryan Medical Center to evaluate the impact of implementing a PHMB-impregnated dressing (Telfa™ AMD). A total of 19,574 patients undergoing National Nosocomial Infection Surveillance System (NNIS) surgical procedures were monitored over a two-year period. The institution switched from plain sterile gauze to PHMB-impregnated gauze for all NNIS procedures in June 2005. Between July 2004 and May 2005, 9,372 NNIS procedures were performed using standard sterile gauze; 101 surgical site infections were identified, including 20 (19.80%) culture-positive for MRSA. During the evaluation period, 10,202 NNIS procedures were performed using AMD gauze; 84 SSIs were identified, including 11 (13.10%) culture-positive for MRSA. This reduction translated to an overall surgical site infection rate reduction of 24% (P=0.035) and a 48% (P=0.047) reduction in MRSA incidence.

**Clinical outcomes:** AMD significantly reduced surgical site infection



As a result of the reduced overall surgical site infection and MRSA rates, this facility realized a significant cost savings, along with enhanced patient safety and increased quality of life.

For more information about antimicrobial dressings with PHMB, contact your Cardinal Health Canada sales representative, call **1.888.291.5033** or visit **[shop.cardinalhealth.ca](http://shop.cardinalhealth.ca)**

\* Statistically significant.

#### Reference

- Impact of an antimicrobial-impregnated gauze dressing on surgical site infections including methicillin-resistant *Staphylococcus aureus* infections Mueller SW, Krebsbach LE. *Am J Infect Control*. 2008 Nov;36(9):651-655.
- Reduction of SSI's Using a 0.2% Polyhexamethylene Biguanide Impregnated Island Dressing, Placed in the Sterile OR Setting, Versus Non-Impregnated Island Dressings Placed in the Same Environment PJ Neitzel, RN1 1Cardiac Surgery, Ingall's Memorial Hospital, Harvey, IL, USA
- Risk Factors for Surgical Site Infections Following Spinal Fusion Surgery at a Children's Hospital RD Cordill, BSN, MPH CC Maynard, PhD, MSW, MA Infection Control, Shriners Hospital for Children-Spokane, Spokane, WA, USA
- Department of Health Services, University of Washington, Seattle, WA, USA
- Analysis of Surgical Site Infection Rates and Cost Benefits Associated with Plain Gauze Dressings versus Gauze Dressings Impregnated with Polyhexamethylene Biguanide (PHMB) Renae Harris, RN, BSN, CIC - Covenant Health System, Lubbock, Texas

## About this study



### Design

Retrospective surgical site infection surveillance



### Intervention

PHMB dressing (Telfa™ AMD)



### Study details

- Bryan Medical Center
- No practice or protocol changes



### Number of participants

**19,574 patients**



### Patient profile

Surgical patients

- Patients undergoing National Nosocomial Infection Surveillance System (NNIS) surgical procedures