
Silver Antimicrobial Hydrophilic Dressing Benefits Management of Recurrent Non-Healing Wounds

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Background

Patients with recurrent and non-healing wounds are often encountered in rehabilitation and long term care (LTC) facilities. Considerable expenditure in staff resources, expenses for laboratory testing, medications and supplies are incurred in resolving these difficult to manage wounds (See Table 1). Infection has often been a complicating factor. SilvaSorb™ Antimicrobial Wound Dressing was evaluated for use in controlling wound exudate and bioburden. SilvaSorb is a hydrophilic super absorbent wound contact material with moisture mobilized sustained release silver. It was hypothesized that the combination of increased moisture management capability and wound bioburden control would be beneficial in decreasing the frequency of dressing change and incidence of infection in difficult to heal exudating wounds. Such an outcome would provide cost savings and potentially improve healing rates.

Table 1. Wound Statistics

Long Term Care Facilities in the US	>15,000
Estimated Total LTC Patient Population	~2.8 million
Pressure Ulcer Prevalence in LTCs	2.3%-28%
Total Financial Burden of Wound Care in US	~\$2 billion per annum
Cost per pressure ulcer in hospitalized patient	~\$10,000-\$20,000
Percent of Chronic wounds with aerobic organisms	98%*
Colonization of chronic wounds by anaerobes	64%*

*Bowler, PB & Varies, BJ. *The Microbiology of Acute and Chronic Wounds. Wounds 11:72-78, 1999.*

Study Protocol and Objective

This study was carried out to determine the effectiveness of incorporating an absorbent silver antimicrobial wound dressing as a prophylactic deterrent to infection in patients at risk or having a history of recurrent infection (See Table 2). Patients were assessed for inclusion using a clinical protocol assessment tool (Figure 1). SilvaSorb Antimicrobial Dressing was substituted for the primary wound contact material previously used. The dressing change frequency prior to initiation of the study was extracted by chart review. The frequency of change of SilvaSorb was monitored over the course of the study period (8 weeks) (See Figure 2).

Table 2. Patient Census

Number of patients	12
Age range	67 - 93
Gender	4M/8F
History recurrent infection	8/12
Co-morbidities	Cardiovascular Disease (5) Circulatory Disorder (3) Diabetes (5) Colon cancer (1)

Figure 1. Clinical Protocol

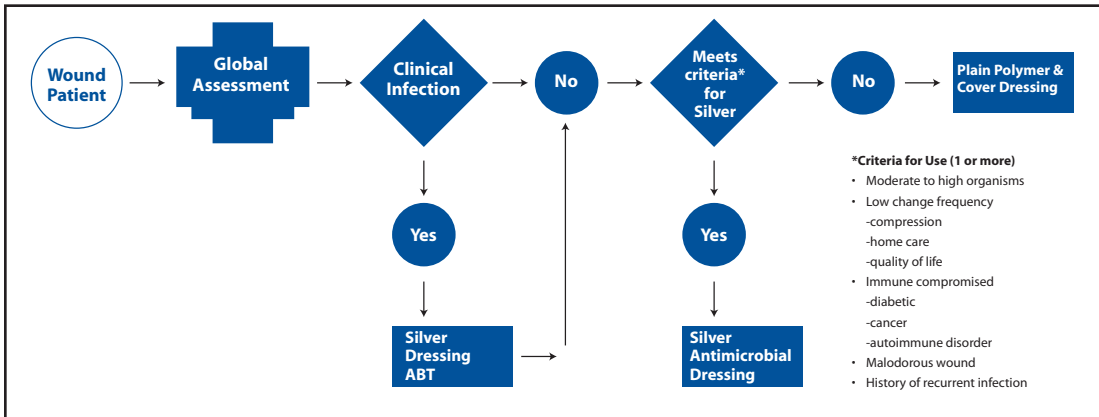


Figure 2.

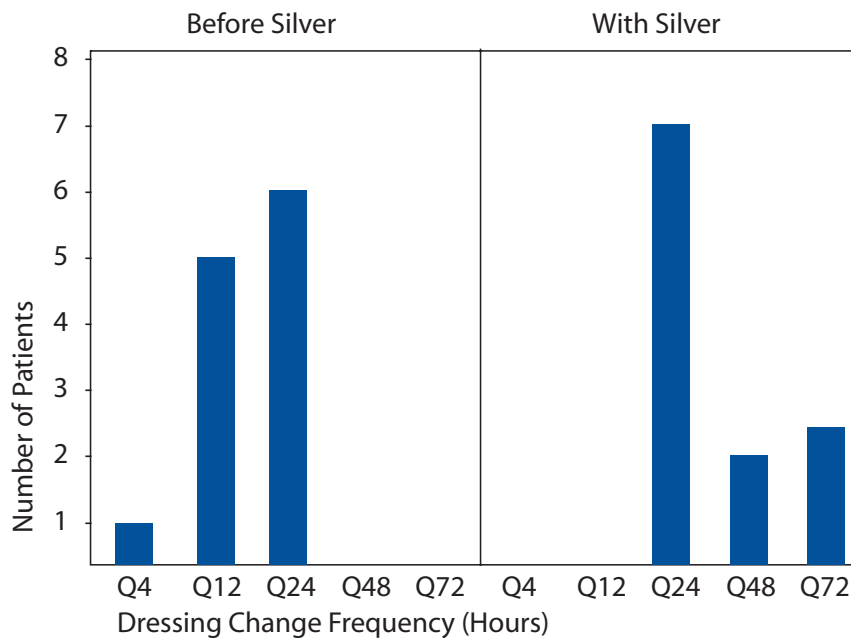


Figure 3. Infection Control Outcome from Using SilvaSorb

Infection Rate prior to Silver Dressing	Infection Rate with Silver Dressing
8 of 12	0 of 12

A female patient in her 40s with immobility due to Multiple Sclerosis. A sacral pressure area was identified on 9/1/01; this area had been open most of the previous 2 years. Nutritional level was suboptimal. The pressure area evolved to a stage 4 with connective tissue visible in the base without evidence of granulation. An antimicrobial polymer dressing was chosen due to the frequent contamination of the area due to fecal incontinence and history of sepsis related to UTI's. Over a period of 8 weeks the wound evidenced complete closure with patient successfully resuming activities outside of her room.



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A 93 yr. old wheelchair bound male, with no significant nutritional deficits, developed a chronic R trochanteric pressure ulcer. The ulcer was alternatively treated with foam and clear film dressings without consistent progress for approximately 4 months. As the wound bed was noted to be friable and therefore presumptive for high bioburden, it was elected to start an antimicrobial dressing in conjunction with off-loading the affected hip. Closure was attained within a 4-week period.



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August 23, 2002

Results and Conclusion

Decreasing the incidences of dressing change frequency and preventing wound infection are two important objectives in controlling the cost of wound care in LTC. This pilot study intended to determine the benefits of using a combination silver antimicrobial hydrophilic super-absorbent dressing for obtaining those objectives. The average change frequency was extended by 235% over the materials previously used. Although 75% of the patients had prior history of recurrent infection, no new infections were observed during the study. None of the patients developed infection during the study. It was concluded that the prophylactic use of an antimicrobial wound dressing with super-absorbent properties such as SilvaSorb decreased materials used, staff time and led to a lower incidence of infection.

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