Clinical evidence to support the appropriate use of silver dressings in wound care

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ABSTRACT

Introduction: Controversy surrounds the use and cost effectiveness of silver dressings in clinical practice. The present study provides clinical evidence to support appropriate use of silver dressings.

Methods: Clinical studies included: a post-marketing surveillance study with pressure sores/venous leg ulcer/diabetic foot ulcer/traumatic wounds patients (n=12 444) treated with ACTISORB® SILVER 220; a randomised control trial (RCT) with diabetic foot ulcer patients (n=40) treated with PROMOGRAN PRISMA® or the standard of care; a RCT with venous leg ulcers/pressure ulcer patients (n=99) treated with SILVERCEL® or calcium-alginates dressings.

Results: Results from the ACTISORB® SILVER 220 post-marketing surveillance study showed that signs of infection reduced from 64.5% at baseline to 7.4% at final visit. In the PROMOGRAN PRISMA® RCT, all patients were protected from infection compared with the control group, where 33% patients were withdrawn due to infection (p=0.012). Of the patients who completed the SILVERCEL® RCT, 47.8% (10.5%) in the control group were treated with systemic antibiotics at the final visit compared with 0/40 receiving SILVERCEL® (p=0.053). Additionally, fewer wounds treated with SILVERCEL® developed a clinical infection over the four-week follow-up compared with the control group (33% vs. 46%; p=0.223).

Discussion and conclusions: There is a wealth of clinical evidence demonstrating the efficacy of silver-dressings in wound care. Silver-dressings can assist in controlling infection and enhance patient quality of life by management of infection-related complications and can help to progress the wound to a normal healing trajectory.

ACTISORB® SILVER 220 CLINICAL DATA

- In a post-marketing surveillance study, data from five clinical studies were pooled and analysed; this was justified as a single protocol was used throughout.
- In total, 12 444 patients with a range of non-healing chronic wounds were treated with ACTISORB® SILVER 220 for up to 6 or 12 weeks, or until healed.
- Chronic wounds treated included: pressure sores, venous leg ulcers, diabetic foot ulcers and traumatic wounds.

Results:

- Approximately 60% of patients were female. The overall study population had a mean age of 67 years. Approximately 32% were diabetic and the median wound duration at enrolment was three months.

- Figure 1. Signs of infection at baseline and at final visit in patients with chronic wounds treated with ACTISORB® SILVER 220.

- Overall, signs of infection reduced from 64.5% at baseline to 7.4% at final visit (Figure 1).
- The overall healing rate was 35.5% and 49.3% for 6 and 12 weeks treatment with ACTISORB® SILVER 220, respectively.

Conclusions:

- Clinical trials involving over 12 000 patients suggest that ACTISORB® SILVER 220 was effective in promoting wound healing, reducing wound malodour and safe.


SILVERCEL® AND SILVERCEL® NON-ADHERENT CLINICAL DATA

SILVERCEL® and SILVERCEL® NON-ADHERENT are both antimicrobial alginate dressings. SILVERCEL® NON-ADHERENT contains the same silver-algin ate material as SILVERCEL® but has an additional non-adherent ethylene methyl acrylate (EMMA) wound contact layer. Clinical evidence for these silver-algin ate based products are presented below.

Study Design

Patients with either a venous leg ulcer or a pressure ulcer (n=99) were randomised to receive treatment with SILVERCEL® (n=51) or a control calcium-algin ate dressing (n=48) for up to four weeks. Assessments included completion of a modified ASEPSIS index to evaluate risk of infection.

Results:

- In total, 40/51 patients receiving SILVERCEL® and 38/48 patients receiving the control dressing completed the four-week study.
- Overall, 4/38 (10.5%) patients in the control group were treated with systemic antibiotics at the final visit compared with 0/40 patients receiving SILVERCEL® (p=0.053).
- Fewer wounds developed a clinical infection over the four-week follow-up in the treatment group (13% versus 46%; p=0.233).
- The 4-week closure rate was greater for patients receiving SILVERCEL® than the control treatment (0.32 v-/-0.57 cm2 vs. 0.16 v-/-0.40 cm2; p=0.024).

Conclusions:

- Patients receiving SILVERCEL® were less likely to develop a clinical infection or require systemic antibiotics than those receiving a calcium alginate dressing.

Reference:


PROMOGRAN PRISMA® CLINICAL DATA

Study Design

Patients with diabetic foot ulcers (n=40) were randomised to receive either treatment with a PROMOGRAN PRISMA® (n=25) or the standard of care (SOC) (n=15) for 14 weeks. The percentage reduction in wound area from baseline determined.

Results:

- In total, 24/25 patients treated with PROMOGRAN PRISMA® and 15/15 patients treated with SOC completed the study.
- No wounds treated with PROMOGRAN PRISMA® were infected, compared with the control group where 33% patients were withdrawn due to infection (p=0.012).
- Significantly more patients had a >50% reduction in wound area (Margolis Index) at Week 4 with PROMOGRAN PRISMA® compared with the SOC (70% vs. 43%; p=0.035).

Conclusions:

- Clinical data suggests that PROMOGRAN PRISMA® stimulated healing while protecting the wound from infection.

Reference:


SUMMARY

- Data presented in these selected clinical studies provides clinical evidence to support the appropriate use of silver-dressings.
- Data presented here is consistent with other clinical studies and in vitro/vivo work. Further clinical and in vitro/vivo evidence to support the use of silver in wound care can be found at http://www.systagenix.com
- Silver-dressings are cost effective, can assist wound healing and enhance patient quality of life.

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