

# Aquacel Ag Dressing Reduces Deep Sternal Wound Infection After Cardiac Surgery

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This study aimed to determine whether using silver-impregnated AQUACEL® Ag Surgical dressings after cardiac surgery could reduce the incidence of deep and superficial sternal wound infections compared with dry sterile dressings.

## Method

The study reviewed data from adult patients (ages 19–89) who underwent cardiac surgery between August 2009 and June 2013. During this time, the hospital changed its postoperative wound-care practice from using dry, sterile dressings to using AQUACEL® Ag Surgical dressings, all other procedures stayed the same.

**Two consecutive patient cohorts were compared:**

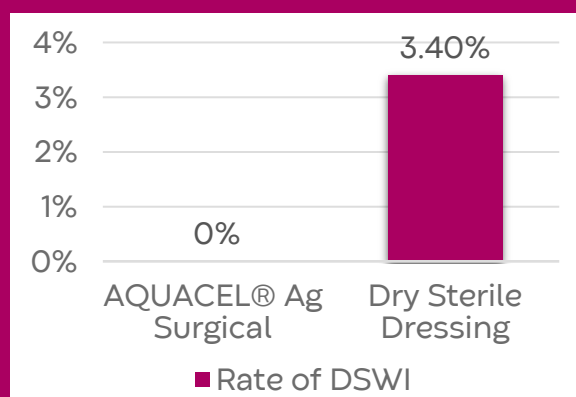
- **Dry dressing cohort:** 504 patients received standard dry 4x4 dressings, changed daily starting on postoperative day 1.
- **AQUACEL® Ag cohort:** 208 patients received an AQUACEL® Ag Surgical dressing worn for 5–7 days unless soiled, in which case it was changed using sterile technique.

Deep sternal wound infection and superficial sternal wound infections reported within 30 days of surgery were included in the analysis.. Demographic and clinical data were compared between the two groups to confirm they were similar and therefore suitable for comparison.

## Results

Deep sternal wound infections (DSWI) occurred in 17 patients (3.4%) with dry sterile dressings and 0 patients with AQUACEL® Ag Surgical dressings - a statistically significant difference ( $P = 0.012$ ).

Superficial infections were also fewer with AQUACEL® Ag (15 cases vs. 4), but this reduction was not statistically significant.



## Conclusion

A significant reduction in the rate of DSWI was reported in cardiac patients managed with AQUACEL® Ag Surgical dressing compared to the standard dry sterile dressing. By helping to reduce DSWI, AQUACEL® Ag Surgical may result in lower healthcare costs and patient morbidity associated with this type of surgery.