

+ Evidence in focus

Publication summary: Legemate CM, et al. *Burns* (2019)*

VERSAJET[®] Hydrosurgery System is a useful tool for burn wound debridement prior to skin grafting and is often used with conventional surgical debridement (SD) as shown in a retrospective study of registry data

+ Plus points

Young age, scalds, high total body surface area (TBSA) burned, and burns on irregular contours were **significant independent predictors** of VERSAJET System use



Median TBSA excised was higher in both groups where the VERSAJET System was used versus SD alone



Overview

- A retrospective cohort study of all patients admitted to three burn centres in the Netherlands between 2009 and 2016
- Data were collected using the national Dutch Burn Repository R3
- Patients (59.5% males; median age, 41 years) with burns of median 5% TBSA received debridement using the VERSAJET System alone (n=506) or with SD (n=599) or using SD alone (n=1,008)

Results

- Younger age, scalds, larger TBSA burned and head/neck and arm burns were significant independent predictors of VERSAJET System use (multivariable analysis)
 - Burns of one region, particularly neck, scalp and genitals, were often treated with the VERSAJET System alone
- Median TBSA excised was greater in both groups where the VERSAJET System was used versus SD alone (Figure)
- Compared with SD alone, patients treated with the VERSAJET System alone:
 - Received dermal substitutes less frequently (1.5 vs 0.2%; p=0.021)
 - Had a smaller mean volume of blood transfusion (156.0 vs 57.2ml; p=0.036)
 - Underwent fewer surgical procedures (mean 1.4 vs 1.2; p=0.019)
 - Had fewer wound infections (3.8 vs 1.6%; p=0.019)

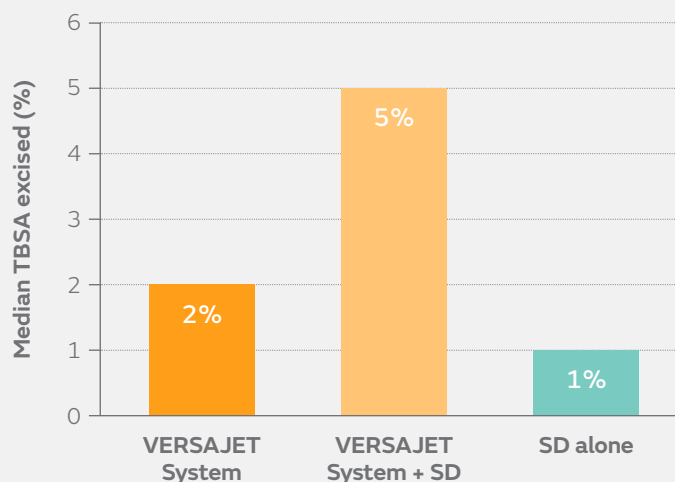


Figure. Median TBSA excised (%) with the VERSAJET System alone, the VERSAJET System plus SD and SD alone. Missing data, n=188

Conclusions

The VERSAJET System is a useful tool for burn wound debridement prior to skin grafting and is often used in combination with conventional SD. Predictors for VERSAJET System use are young age, scalds, high TBSA burned and burn sites with irregular (convex) contours.

Citation

*Legemate CM, Goei H, Gostelie OFE, Nijhuis THJ, van Baar ME, van der Vlies CH. Application of hydrosurgery for burn wound debridement: an 8-year cohort analysis. *Burns*. 2019;45(1):88–96.

Available at: [Burns](#)

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