

SUPPLEMENTARY FIGURES

Supplementary figure 1. Prevalence of *spa*-types in nose and skin

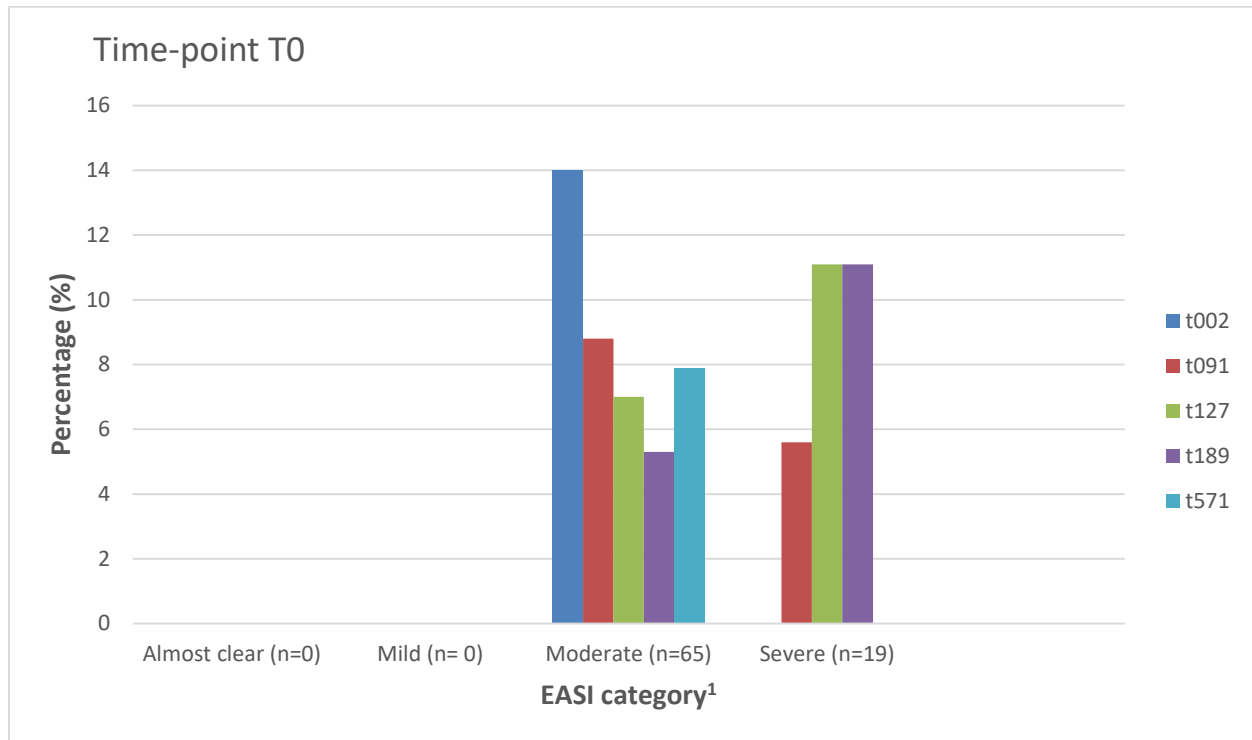
Barchart of all 55 *spa*-types from the total of 285 isolates in the total patient group per location and time-point.



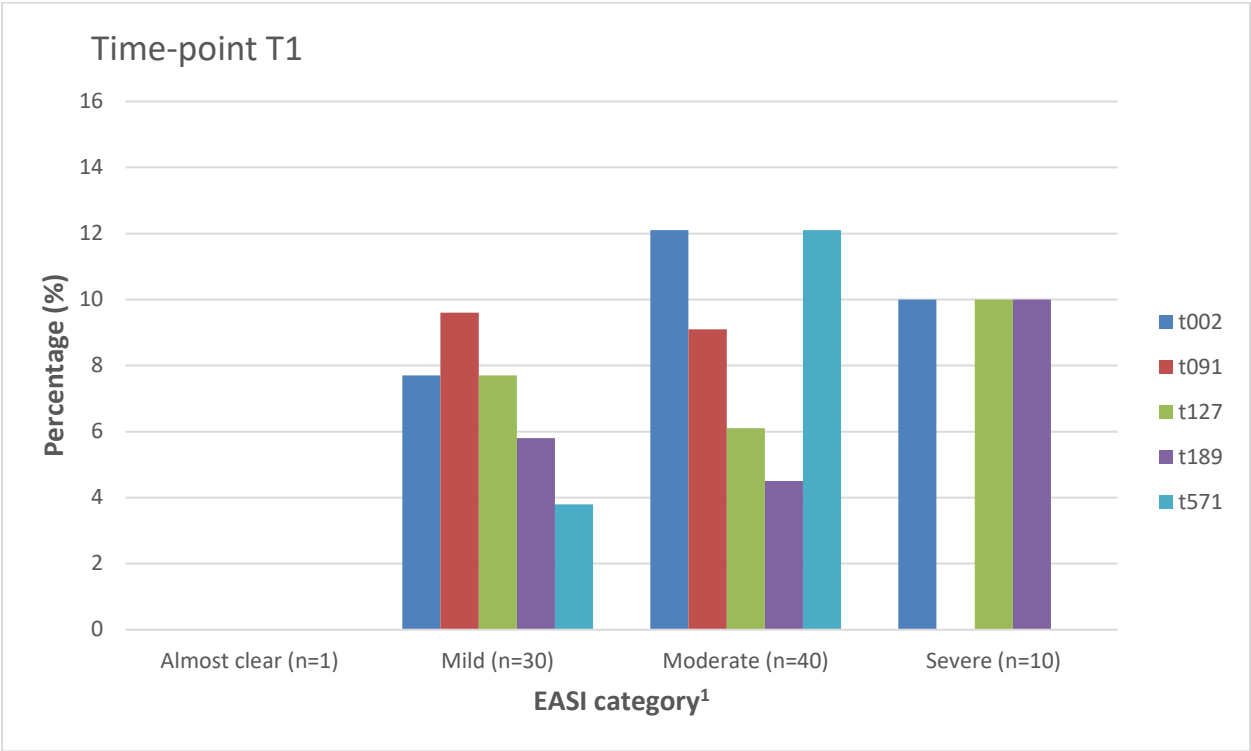
Supplementary figure 2. The abundance of the five most common *spa*-types per severity score

¹Disease severity represented by EASI categories. Almost clear = EASI score 0.1– 1.0; Mild = EASI score 1.1–7.0; Moderate = EASI score 7.1–21.0; Severe = EASI score 21.1–50.0. **A.** The five most common *spa*-types found in nose and skin in relation to the EASI score at baseline (T0) in patients positive for *S. aureus*. This included a total of 65 patients with moderate disease and 19 patients with severe disease. There was no overrepresentation of a specific *spa*-type per severity category at T0. **B.** The five most common *spa*-types found in nose and skin in relation to the EASI score at T1 (two weeks after baseline) in patients positive for *S. aureus*. This included a total of 1 patient with almost clear disease, 30 patients with mild disease, 40 patients with moderate disease and 10 patients with severe disease. There was no overrepresentation of a specific *spa*-type per severity category at T1.

A.



B.



Supplementary figure 3. Disease severity separated for patients with and without temporal variation in *spa*-type

The patient group carrying an identical *spa*-type (in nose and skin) at both time-points had a reduction in EASI score from a median of 12.7 (IQR 10.7-19.1) to 8.8 (IQR 5.0-14.7). Patients with a temporal variation in *spa*-type (nose and/or skin) had a median EASI score of 18.2 (IQR 14.6-22.0) and 7.8 (IQR 4.8-14.9) at T0 and T1, respectively. The change in EASI score between both groups was not statistically significant.

Abbreviations: EASI: Eczema Area and Severity Index; IQR: interquartile range; T0: baseline.

T1: 2 weeks after baseline; ns: non-significant. ¹: A Mann-Whitney U test ²: Wilcoxon Signed Rank test

