

# Successful sanitation of MRSA-contaminated chronic skin wounds by using a PHMB-containing HydroBalanced biocellulose based wound dressing\*

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## Introduction:

Staphylococcus aureus is a really important microorganisms of nosocomial infections and is a common complication during the treatment of chronic wounds. It can exhibit a range of antibiotic resistance (MRSA, Methicillin-resistant Staphylococcus aureus). Multiresistant bacterias are one of the most important and unsolved problems in modern medicine and infection control. The termination of this problem will be still a long tramp. Especially topical treatment of MRSA-contaminated wounds is a really challenging point because of the special character of the microbial biotope "chronic wound".

In a first trial using of a PHMB-containing HydroBalanced biocellulose based wound dressing (PHWD)\* it was able to eliminate MRSA in a number of wounds in relatively short times save, comfortable and without failure.

## Material and Methods

A total of eight patients with chronic wounds with MRSA-contamination and a longer pre-treatment period without sanitation were treated with the new PHMB-containing HydroBalanced biocellulose based wound dressing\* for a period of about two weeks. Dressing changes took place every two to three days. After treatment period a repetitive microbiological diagnostic has been accomplished. In this way, microbiological semiquantitative controls were conducted after finishing the santitation process for three days once a day.

## Results

In all cases the MRSA contamination was totally eliminated after a treatment period of maximally two weeks. Repetitive microbiological swabs were conducted with negative results after this local treatment procedure. Treatment was save and comfortable for patients and easy to use in handling for therapeutic teams. No complications were reported for all therapeutic cases.

A survey is given in table 1. Clinical findings are exemplarily shown in the following case report.

## Conclusion

Successful sanitation of MRSA-contaminated chronic wounds is a special point of interest caused by the special and challenging microbial situation. These eight cases are the starting point for a study controlling these excellent first experiences on a higher level of evidence.

\* PHWD = Suprasorb®X+PHMB, Lohmann & Rauscher

## Case report (table 1, case no 3):

male patient, 43 years old with pressure ulcers on the lower leg. Treated with PHWD\*



**Day 1 (11.12.07):**  
Situation when starting sanitation with PHWD\*

**Microbiological result (semiquantitative): ++**



**Day 14 (24.12.07):**  
Situation after sanitation directly

**Microbiological result (semiquantitative): -**



**Day 18 (28.12.07):**  
Situation after sanitation (additional control after 4 days)

**Microbiological result (semiquantitative): -**

Table 1

Case number	Microbiological situation at start (semiquantitative result)	Sanitation successful (Day 12)	Microbiological situation Control 1 (Day 13)	Microbiological situation Control 2 (Day 14)	Microbiological situation Control 3 (Day 15)
1	+	yes	-	-	-
2	++	yes	+	-	-
3	++	yes	-	-	-
4	++	yes	-	-	-
5	+	yes	-	-	-
6	++	yes	-	-	-
7	+	yes	-	-	-
8	++	yes	-	-	-