

EWMA Congress 2023, Milan, May 3 - 5

## **BACTERIAL CELLULOSE—ADAPTATION OF A NATURE-IDENTICAL MATERIAL TO THE NEEDS OF ADVANCED TREATMENT OF CHRONIC WOUNDS**

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### **Aim:**

Modern wound treatment calls for hydroactive dressings. Among the variety of materials that have entered the field of wound care in recent years, the carbohydrate polymer bacterial cellulose (BC) represents one of the most promising candidates as the biomaterial features a high moisture-loading and donation capacity, mechanical stability, moldability, and breathability. [1]

### **Method:**

Commercially available BC wound dressing\* has been evaluated in a multi-center study in 44 patients with mainly venous leg ulcers, mixed leg ulcers, and diabetic foot syndrome. This observational data collection has been performed according to Medical Devices Documents (MEDDEV) 2.12/2 Rev. 2 guidelines for post-market clinical follow-up studies.

### **Results / Discussion:**

A significant cleansing effect was achieved during application, with a reduction of fibrinoid coatings from approx. 57.1% to 43.1% representing a very good value for autolytic wound cleansing. Irritative manifestations at the wound edges and peri-wound skin decreased significantly during application period. In addition to the palliative properties of the dressing, this also demonstrates its excellent tolerability even for pre-existing skin damage.

### **Conclusion:**

The dressings were very comfortable for patients to use both during dressing changes and application. Rare unpleasant sensations were generally minor in their severity and also decreased significantly over the treatment period.

Overall, a high level of satisfaction for patients and professional users can be stated.

### **Reference:**

1. Zahel, P.; Beekmann, U.; Eberlein, T.; Schmitz, M.; Werz, O.; Kralisch, D. Bacterial Cellulose—Adaptation of a Nature-Identical Material to the Needs of Advanced Chronic Wound Care. *Pharmaceuticals* 2022, 15, 683.

\* epicite<sup>hydro</sup>