### Lysando®

# **Medolysin**<sup>®</sup>

Extend the limits of wound care.

## CHRONIC WOUNDS

#### WHEN WOUNDS DO NOT HEAL.

Millions of patients around the world suffer from persistent, infected and potentially life-threatening wounds. They are not only painful, but also restrict the life of every individual. The patients are exhausted - socially, physically and emotionally.

#### The wound is omnipresent.

The common cause are bacterial pathogens that hinder the patients' pain-free lives.

#### RESISTANT BACTERIA -A critical evolution

Wound care can rapidly become more complicated when doctors have to combat infections caused by antibiotic-resistant bacteria. Pathogens, such as *Staphylococcus aureus*, develop resistance to one or more antibiotics.

This makes the treatment of chronic wounds immensely more difficult and results in a serious and permanent health risk for the patient.

In a study published in the journal "Antibiotics", samples were taken from 239 patients and species were isolated.

Overall, 88% of the bacterial species in the

wound samples showed resistance to at least one antibiotic.<sup>1</sup>

Previously successful methods for the treatment of chronic wounds are reaching their limits.

#### **BIOFILM -**

#### A PERSISTENT ACCUMULATION

The formation of a biofilm in infected and chronic wounds, in which bacteria can multiply unhindered and protected, is the rule.

Antiseptic solutions or local antibiotics penetrate this protective layer at most superficially. Bacterial pathogens are therefore only reached to a limited extent and regularly enter the state of persistence. Wound healing comes to a standstill.

The treatment becomes more complicated from time to time.

WHEN CONVENTIONAL TREATMENTS DO NOT WORK

THE LIMIT IS REACHED

### 10 MIO.

ANNUAL DEATHS WORLDWIDE DUE TO ANTIMICROBIAL RESISTANCE IN 2050 (ESTIMATE).<sup>2</sup>

80% of all wounds contain a biofilm.<sup>3</sup>

# **Medolysin**<sup>®</sup>

Promotes natural wound healing by forming a protective film - for an ideal wound climate.

Infected, persistent wounds contain (multi-)resistant bacteria. Colonisation with bacterial pathogens significantly impairs wound healing. Medolysin® protects the destroyed skin barrier by forming a protective film on the wound. It promotes beneficial bacteria for the healing process by reducing problematic pathogens.

### A WAY OUT

#### When chronic wounds heal again.

Medolysin® has a positive effect on the damaged skin microbiome by creating an ideal moist wound environment, supported by the protection of specific bacteria of the skin flora. This also supports stagnant healing processes of chronic wounds.

Wound care with Medolysin® creates a treatment alternative - for chronic wounds, for patients, for a better quality of life.



### THE COMPOSITION, THAT MAKES IT POSSIBLE.

One of the effective components is hydroxyethylcellulose. In addition to its adsorption properties, it forms a protective film on the wound which promotes healing.

The EDTA behaves as a synergist to Artilysin® as it increases the permeability of the affected cell membrane through its physical action. The Artilysin® contained in Medolysin® represents a new class of molecules. The physical-enzymatic properties enable a selective effect against pathogenic bacterial species. Due to this, wounds infected with persistent and multi-resistant bacteria, e.g. MRSA (Methicillin-resistant *Staphylococcus aureus*), can be treated. Biofilms are also combated.

The unique interaction of the components and the mode of action of the molecules contained make Medolysin® effective against chronic and infected wounds.



### FOR A BETTER QUALITY OF LIFE

For a pain-free, self-determined life.

Studies with Medolysin® have helped patients with longstanding infected wounds who did not respond to classical treatment. Quality of life improved significantly by promoting wound healing.

In all cases, the wound healing process was initiated by a shift from fibrinous tissue and necrotic cells to epithelial cells and granulation tissue. Chronic wounds such as venous, mixed and arterial ulcers were included. 2 STUDIES 72 PATIENTS 100% INITATION OF WOUND HEALING

# Medolysin®

already helps today.



#### One month of pain

The patient suffered from the infected wound for one month.

The wound was colonised with several bacterial pathogens, including: *E. coli* and *S. aureus*.

Various classical treatments failed.

After only 6 applications of Medolysin®, the wound healed completely. The patient was free of pain.

Parallel treatment was applied only with Vliwaktiv® absorbent dressing pad, Tegaderm™ Matrix, Biatain®, non-adhesive.

#### Three years of pain

The patient suffered from the infected wound for almost 3 years.

The wound was colonised with several bacterial pathogens, including: *P. aeruginosa, E. cloacae* and *S. aureus*.

Various classical treatments failed.

After only 9 applications of Medolysin®, the wound healed completely. The patient was free of pain.

Parallel treatment was performed only with 0.9% NaCl, Allevyn dressing (absorbent dressing), Mefix, Peha-Lastotel and compress.



## Treatment of typical infected chronic wounds.

Medolysin® is a wound spray for use on chronic and infected wounds such as decubitus ulcers and leg ulcers.

The simple and targeted application ensures fast, effective wound care

- so that the skin closes again.

The solutions keep the wound moist, form a protective film and lead to a reduction in the bacterial germ load of the wound. It is used on slightly to moderately exuding wounds.

Medolysin® consists of two solutions to be applied consecutively.

## Medolysin<sup>®</sup> WOUND SPRAY.

### **FAST - CAREFUL - PROTECTIVE**

- ✓ accelerates wound healing
- ✓ supports natural wound healing
- ✓ forms a protective film

- $\checkmark$  gentle to the skin
- moisturises the wound
- ✓ reduces the risk of scars

### **SOLUTION A**

reduces the bacterial load of Gram-negative bacteria

Pseudomonas aeruginosa Acinetobacter baumannii Escherichia coli Klebsiella pneumoniae



EF 175

### **SOLUTION B**

reduces the bacterial load of Gram-positive bacteria

Staphylococcus aureus

The product has to be applied by adequately trained qualified staff only.

There are no antibiotics or alcohols contained.



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- Sources:
  1. Microbial Species Isolated from Infected Wounds and Antimicrobial Resistance Analysis: Data Emerging from a Three-Years Retrospective Study, 10.3390/antibiotics10101162.
  2. Tackling Drug-Resistant Infections Globally AMR Review, https://amr review.org/Publications.html
  3. Biofilm Survival Strategies in Chronic Wounds, https://doi.org/10.3390/microorganisms10040775.

### Lysando®

A biopharmaceutical company with a leading antimicrobial technology, aiming for a world without fear of bad bacteria to empower everyone to live a better and longer life.

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