

FEEDBACKS FROM THE USERS OF CC STEPs



Mizushima Kyodo
Hospital (Japan)

I experienced a case in which "the granulation was judged to be in good condition, but the biofilm was detected by the results of the tools ". This experience changed my view for the wound. I feel that the use of detection tools has helped me to develop a perspective of "Where biofilm is generated in the wound."

I used to see the wound as a flat surface, but now see the unevenness and the areas that look like cliffs due to lack of granulation growth. Through these experiences, I feel there is a correlation between wound healing and the presence or absence of biofilm. Then, I began to think about how to select treatment methods and medical materials, such as negative pressure closure therapy, dressings, and topical agents, to reduce biofilm.



Wakaba Hospital (Japan)

The detecting method is simply pressing a membrane sheet against the cleaned wound for about 10 seconds, which is very easy on the patient. The staining and decolorization process, which is performed by a medical professional, is not too difficult once it is done two or three times. It can be performed at the bedside or in other clinical settings, and the time required to detect the presence or absence of biofilm is only about 2 minutes, which is good for quick results. When comparing cases where the same wound was detected at different times, we can also compare the deepness of the color. We feel that cases with deeply stained membrane sheets are not in good condition for the appearance of the wound. At our hospital, the following measures are used to reduce or eliminate the biofilm detected: (1) Surgical debridement,

(2) Use of iodine-containing ointments, and (3) Use of antibacterial wound dressings/protective materials. As an example, we have experienced a case in which biofilm detection was performed on an exophytic bedsore before and two weeks after the use of iodine-containing ointment, and the staining results of the biofilm detection tool showed a reduction in coloration and an improvement in the condition of the wound.

FAQ

1. What is the meaning of "CC STEPs"?

" CC" is the initial of Cure and Care.

We would like to propose a brand that allows users to select and use the appropriate products necessary for Cure and Care according to the stage (step) of wound healing.

2. Are there other uses besides wounds?

In one case, it was used to detect the presence of biofilm on the attached part of an artificial heart.

3. Can we know the amount of biofilm?

We can know the amount of dye by how dark or light the color is.

WOUND MANAGEMENT

TAKING HEALING TO THE NEXT STAGE CONTRIBUTES TO WOUND HEALING WITH OUR TECHNOLOGY

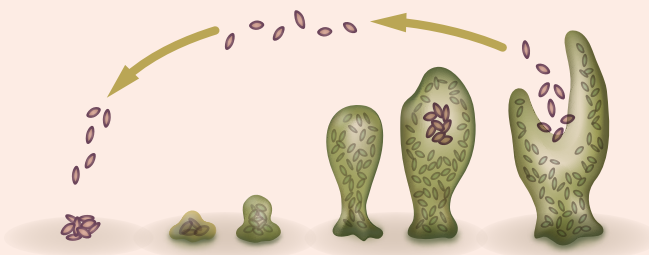


OUR APPROACH FOR WOUNDS



Due to an increase of aging population and the number of surgeries, the number of patients with "chronic wounds" is increasing worldwide. The ability to heal chronic wounds quickly and with minimal patient suffering is an important challenge. While there are various causes and remedies for chronic wounds, "Biofilm" is considered to be one of the factors that inhibit healing, and the need for "Biofilm-based wound management" is being advocated.

WHAT IS A CHRONIC WOUND?



A **"Chronic wound"** is a skin injury that lasts longer than six weeks or is repeated. Chronic wounds impair the quality of life (QOL) of the patient and cause problems such as high medical expenses and prolonged hospitalization. Chronic wounds are caused by chronic diseases, ulcers due to diabetes or blood flow disorders, bedsores, nutritional disorders, and local factors such as infection, pressure, and edema. Treating these chronic injuries requires a medical approach based on an accurate determination of the cause.

WOUND BIOFILM

Biofilms is generated on chronic wounds at a very high rate with the following characteristics.

- 1, It is a community site formed by bacteria, glycoproteins, proteins, and extracellular DNA
- 2, They develop pathogenicity when many bacteria accumulate.
- 3, It induce chronic inflammation during the wound healing process
- 4, It has a tendency to evade the action of antimicrobial agents and host immunity.

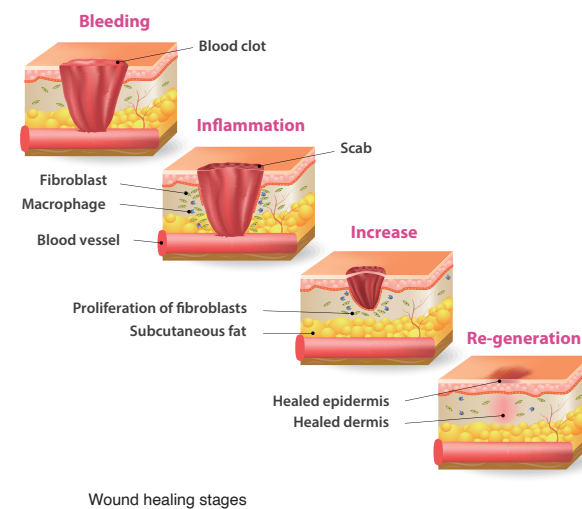
The presence of biofilm on a wound is considered to be a condition of impaired healing. In wound management, it is important to promptly reduce or eliminate the biofilm. However, the presence and distribution of biofilm on a wound cannot generally be confirmed by the appearance of the wound alone. In other words, even wounds that looks no biofilm may contain biofilm. Determining whether biofilm is present and, if so, where it is distributed, is the best way to ensure proper wound management.

VISUALIZING BIOFILM

The CC Steps Biofilm Detection Tool is developed based on the concept of "Visualizing biofilm on wounds for better wound management". It is quick and easy to use at the bedside and requires no special technics, making it possible to visualize biofilms in situations where a "Wound management specialist" is not available. We believe that this product will contribute in taking biofilm-based wound management to a new stage.



The CC STEPs Biofilm Detection Tool



Wound healing stages

APPROACHES TO WOUND HEALING

There are many different methods to healing chronic wounds. However, the most common approaches to chronic wounds with wound biofilm are cleaning, debridement (removal of infected and necrotic tissue), use of appropriate antimicrobial agents, and covering to maintain the moisture balance. Each of these measures is combined with a "biofilm visualization" approach to detect biofilm.

The establishment of a management cycle that implements wound management based on the results of the biofilm detection is considered effective in promoting wound healing. In addition, cleansing the skin surrounding the wound, moisturizing and protecting it, and improving nutritional status are thought to have a certain effect on wound healing by preventing biofilm re-generation. Thus, in "Biofilm-based wound management," advances not only in medical technology but also in product technology are seen as helping to make the practice more effective.

FOR BIOFILM DETECTION



CC STEPs

Sample Collection
Membrane Sheet,
20 sheets



CC STEPs

Staining Liquid,
125mL

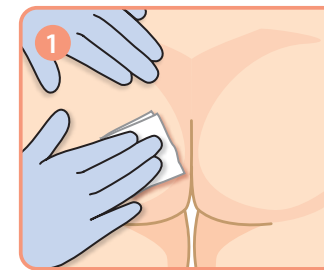


CC STEPs

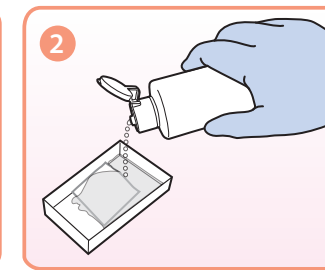
Preprocessing and
Bleaching Liquid,
250mL



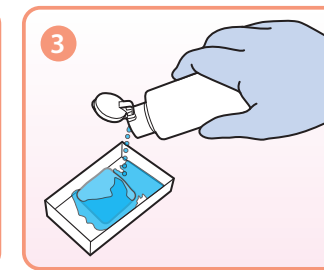
HOW TO USE CC STEPs



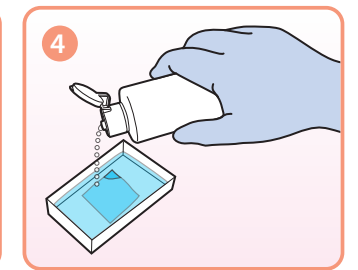
Carefully clean the wound, and moisten the membrane sheets with saline solution. Place membrane sheet on the wound site and hold firmly for 10 seconds.



Remove the membrane sheet from wound site and place into the sample collection container. Pour pre-processing liquid into the container to soak evenly. Allow it to soak for 30 seconds, then drain and dispose of any extra liquid.



Pour staining liquid evenly onto the pre-processed membrane sheet. Let sit for 30 seconds, then drain and dispose of any extra liquid.

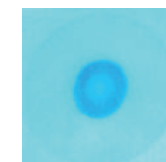


Pour bleaching liquid on stained membrane sheet soaking evenly 60 seconds. Drain and dispose of any extra bleaching liquid.

Example
of biofilm
detection



〈Detected〉
Area of biofilm
will be stained
dark blue.



〈Not Detected〉
Membrane sheet
will be stained in
light blue with no
dark blue spots.



FOR CARE OF WOUND SURROUNDING AREAS



Prime Wash Foaming Body Wash
500mL with pump

It is a moisturizing and comfortable wash while caring for sensitive skin. It is formulated with hypoallergenic amino acid-based cleansing ingredients, 15 kinds of amino acids, and anti-inflammatory ingredients. The smooth and dense foam gently cleanses the skin and requires short rinsing time.



Prime Moist Coat 120g

It is a moisturizing cream that protects your skin from dryness, dirt, and irritation. It moisturizes sensitive skin with moderate moisture. It spreads easily, smoothly, refreshingly, and contains deodorant ingredients.