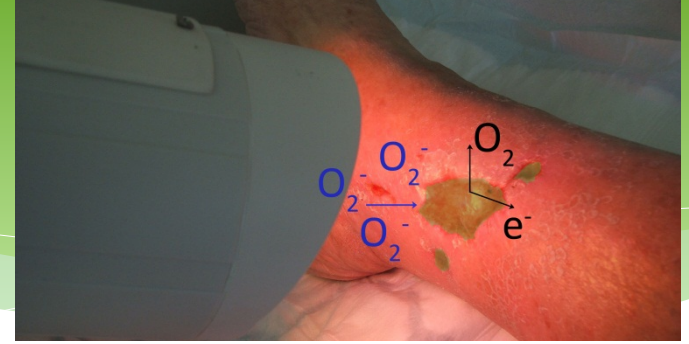


# CAN WMCS (WIRELESS MICROCURRENT STIMULATION) IMPROVE THE TREATMENT OF CHRONIC WOUNDS?

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# Effectiveness



- \* **Electric stimulation (ES)** is the only method of treatment of chronic wounds with the **highest grade of evidence (level Ia)**.
- \* As before ES was performed by applying dressing electrodes with cables and a DC- device.
- \* With the **WMCS-therapy** the well-known positive effects of the ES are produced by using a **radiation source without any direct contact to the patient**
- \* The present applied physical laws are well-known („plateout-effect“).

# Advantages of WMCS-therapy

- \* Noninvasive
- \* Painfree
- \* Device easy to transport
- \* Device easy to handle
- \* First device for treatment of burns
- \* Electrostimulation with highest grade of evidence (Ia)



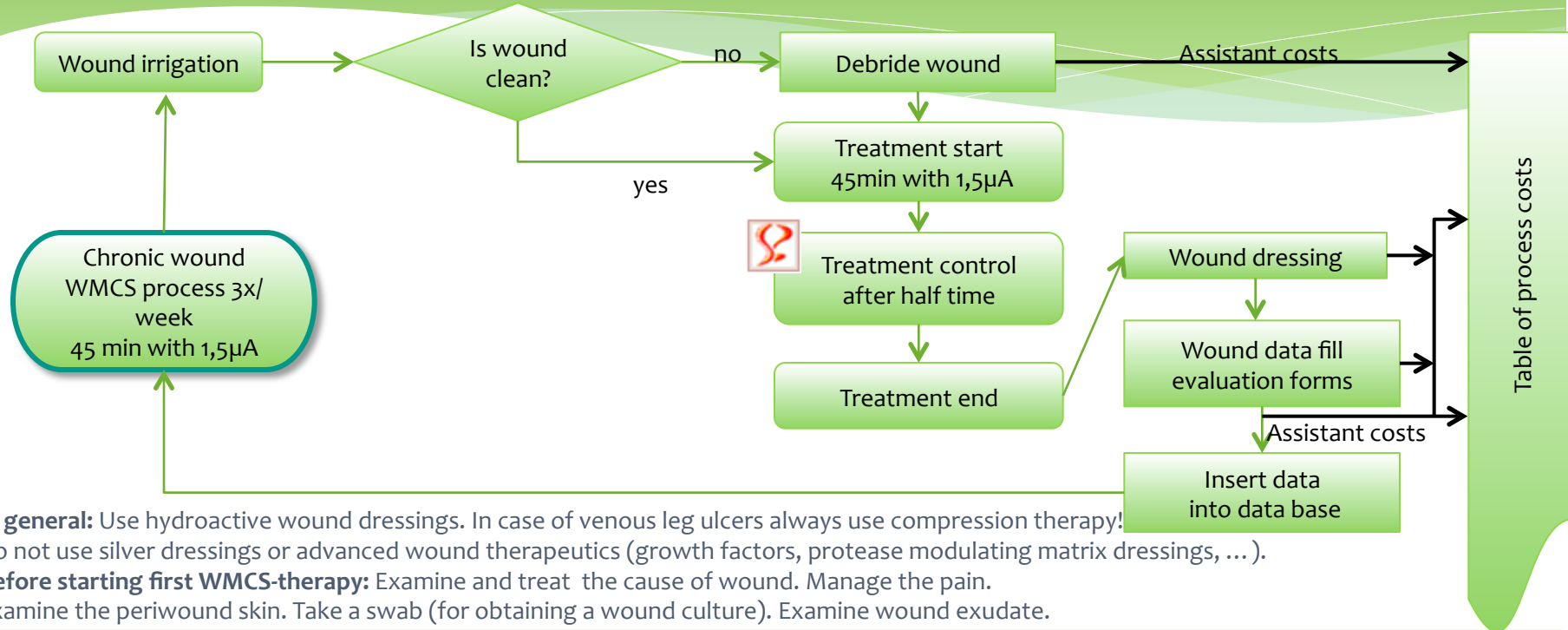
# Technique



child 3y., ♀, burns °IIa-b - 3 days after WMCS

- \* The in Europe and Asia **in burns already very successful** used WMCS-method is demonstrated on the bases of 3 out of **28 patients with nonhealing leg ulcers** of different genesis **or diabetic foot syndrome (dfs)**.
- \* The duration of the WMCS-sessions are **45-60 minutes (2-3x/week)** over a time period of 3 weeks to 3 month, with an **intensity of current of 1,5µA**.
- \* **Sterile gauze** was used most as **wound dressing**.

# Treatment algorithm of chronic wounds with WMCS-therapy



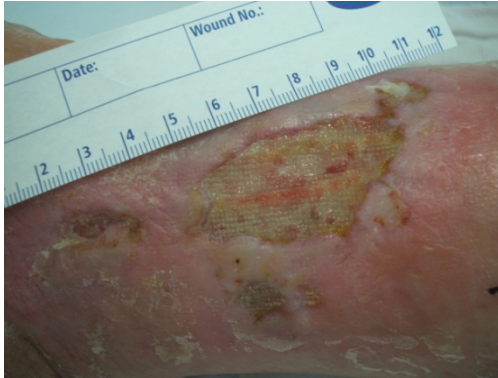
**In general:** Use hydroactive wound dressings. In case of venous leg ulcers always use compression therapy!

Do not use silver dressings or advanced wound therapeutics (growth factors, protease modulating matrix dressings, ...).

**Before starting first WMCS-therapy:** Examine and treat the cause of wound. Manage the pain.

Examine the periwound skin. Take a swab (for obtaining a wound culture). Examine wound exudate.

# Pat. 1, ♂, 84 years, peripheral aod stage IV



- \* Treatment start  
fibrin coverings, four ulcers



- \* After 3 weeks  
explicit cleaning and  
reduction of all ulcers

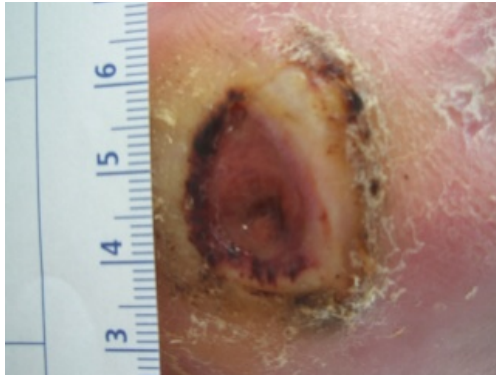


- \* After 10 weeks  
three ulcers healed,  
one ulcer 50% reduced

# Pat. 2, ♂, 74 years, diabetic foot



- \* Treatment start  
woundarea 170 mm<sup>2</sup>



- \* After 7 weeks  
woundarea 150 mm<sup>2</sup>



- \* After 12 weeks  
woundarea 120mm<sup>2</sup>

Total decompression not possible!



# Pat. 3, ♀, 75 years, mixed leg ulcer



\* Treatment start



\* After 2 weeks  
wound area 50% reduced



\* After 5 weeks  
wound almost healed



# Summary

- \* Even **after one week**, latest after 3 weeks, a clear **progression of wound healing** respectively a replacement of woundhealing with an **extensive reduction of the woundarea in all patients** is to be seen.
- \* It is shown, that even in selected **worst cases** and in so-called „**non treatable patients**“ a **positive influence on the wound healing** is reached with the WMCS-therapy.
- \* Side effects or **complications did not appear** according to the selection of the patients (no WMCS-therapy in highly acute infected wounds)
- \* An **improvement or faster healing of non healing wounds by using the WMCS-method seems possible.**  
→ further examinations and comparative controlled studies are necessary to  
affirme this declaration.