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Practical aspects from the surgeon's point of view

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Congress 2019



Practical aspects from the surgeon's point of view

We have a great deal of information regarding research on the molecular level of wound healing. On the one hand this is important when it comes to the development and scientific testing of bandages.

On the other hand, looking from the practical point of view visible signs and the connection with the clinical picture is more relevant - as sometimes only a couple of minutes are available for assessing the tool and for making the decision if it is satisfactory.





Practical aspects from the surgeon's point of view. - METHODS:

With every patient with a chronic wound, the protocol is as follows: Photographic documentation with **klonk image measurement**.

- 1. Accurate definition of the wound surface
- 2. Definition of a 1 cm border surrounding the wound
- 3. Definition of hyperkeratosis
- 4. Securing wound surface bacterialis biofilm
- 5. Measuring quality of granulation tissue
- 6. Physical description of the area under bandage (inflammation, oedema, necrosis, biofilm, secretion).

This is performed at each bandage change, and we analyze periods that are at least four weeks long.

Photographic documentation with

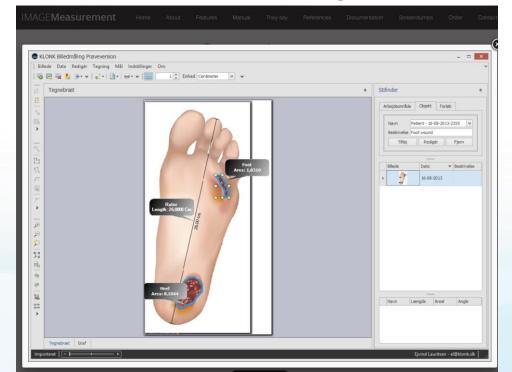
Klonk image measurement





Practical aspects from the surgeon's point of view. <u>METHODS:</u>

Photographic documentation with Klonk image measurement







Photographic documentation with **Klonk image measurement**

Why use Image Measurement to measure the sizes of wounds?

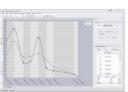
Tests demonstrated that wound margin advance, initial healing rate, percent wound surface area reduction, and wound healing trajectories (all p<0.001) were powerful predictors of complete wound healing at 12 weeks. (Early healing rates and wound area measurements are reliable



predictors of later complete wound closure, Advanced BioHealing NY, 2008)

KLONK Image Measurement has been used in research projects for measuring the development in sizes of wounds. The tool has been used in different projects in hospitals in Europe to validate measurements and healing methods. Our software does not only help measuring, but are also focusing on giving a user-friendly way of keeping track of patients and document healing rates.

Studies have shown that the photographic method is an accurate alternative to contact methods, for measuring wound area, with no statistical difference in wound area measurement demonstrated during this study. The photographic method is a more appropriate technique for clean



and uncontaminated wounds as contact with the wound bed is avoided, negating the risk of wound contamination, wound bed damage, and patient discomfort. (A Comparison of Wound Area Measurement Techniques: Visitrak Versus Photography, University of Adelaide, 2011)

How to measure the size of a wound

In order to use KLONK Image Measurement to measure the size of wound you must follow the following procedure:

- · Download and register KLONK Image Measurement
- Acquire an image with a digital camera, a mobile device or live video source, with a ruler (or another object with a known dimension) next to the wound.
- · The image must be taken in an perpendicular angle
- Import the image from the camera or mobile phone to KLONK Image Measurement
- Calibrate the image size, according to the length of the known calibration object or ruler
- . Draw the outline of the wound

If many measurements should be handled in large clinics or research projects, we recommend using KLONK Image measurement Scientific or Central. It includes report generation, area tracking curves and stores images in a database for better statistical handling. KLONK Image Measurement Central also has the possibility to be used as a multiuser system.





Practical aspects from the surgeon's point of view. <u>METHODS:</u>

Photographic documentation with Klonk image measurement

Image Measurement ...

Take a picture, load it up, calibrate and measure!



Track development of measurements over time

Track the development of your measurements with Image Measurement and generate reports to use for documentation.



Measure length, area, angle and circumference

You can measure both the length, area, circumference or angle of an object with Image Measurement.



Measure on images from Google Maps

Use Image Measurement to measure on images from Google Maps in both Earth and Street View.







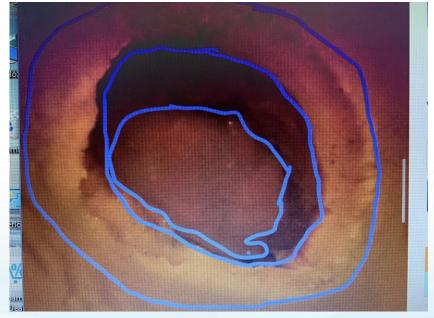








- 1. Accurate definition of the wound surface
- 2. Definition of a 1 cm border surrounding the wound
- 3. Definition of hyperkeratosis (only DFS)







- 4. Securing wound surface bacterialis biofilm
- 5. Measuring quality of granulation tissue
- 6. Physical description of the area under bandage (inflammation, oedema, necrosis, secretion).







After introducing the **hydro-tac bandages** we compared our results with the effect of conventional sponge bandages.

For a quick and easy assessment we have **used six questions** to measure the efficiency of the hydro bandages, and the difference was immediately unequivocal.





We are presenting the parameter changes of ten patients – **on sole,** front foot **diabetic wounds** and on patients suffering from **leg ulcer.**



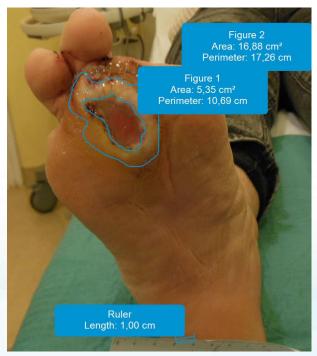


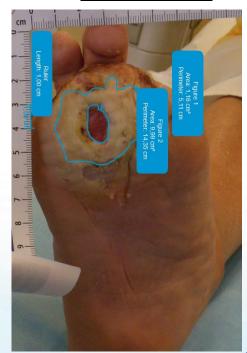












HARTMANN





























During the everyday practice the surgeon has to make a decision about the future treatment of the wound.

Continue or Change





By changing the "Status idem", "better", or the "WOrse" clinical opinion to the above mentioned system based on the orderly comparative data, our wound healing efficiency will increase, thus we can keep up with the progress of the intelligent bandages.





Limb-saving application.....one step to future

By MEROVA method









My Colleagues







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