

# A HOLISTIC APPROACH TOGETHER WITH POLYMERIC MEMBRANE DRESSINGS\* CLOSED A GRADE IV PRESSURE ULCER IN 2,5 MONTHS



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## BACKGROUND

A previously healthy 38 year old single mother of two, contracted tonsillitis that lead to myocarditis, congestive heart failure and several acute myocardial infarctions. The cardiovascular complications resulted in a leg amputation and 4 months after that she underwent a heart transplant.

During her stay at the surgical clinic she developed a large grade IV sacral pressure ulcer. Six months later the ulcer was still deteriorating, in spite of surgical interventions, debridement, negative pressure and skin grafts. Her dressings consisted of topical negative pressure, hydrofibers, soft silicone dressings, various antiseptics, gauze and lying on her side, airing/drying out her wound.

She spent most of her time in her specialized pressure relieving bed.

When she arrival to our rehabilitation centre the ulcer measured 7 x 9 cm with 1- 3 cm undermining on one side and was extremely painful.

## AIM

Our goal is to help motivate our patients to regain an active role in society with a high degree of autonomy and life satisfaction. And, of course in this case, to heal the grade IV pressure ulcer and get her mobilized.



**November 2006**

The grade IV ulcer before the surgical interventions. The first myocutaneous island flap performed to the wound when it was 3 months old dihesced due to infection. The split skin grafts applied 2,5 months later did not take. She came to our clinic 19 days after the split skin graft transplantation.

## METHODS

Polymeric membrane dressings often provide significant wound pain relief. The dressings also contain ingredients which draw and concentrate healing substances from the body into the wound bed to promote rapid healing, while facilitating autolytic debridement by loosening bonds between the slough and the healthy tissue. These unique dressings add moisture to dry wounds while absorbing excess fluid.

Polymeric membrane dressings, with polymeric membrane wound filler, were used in the cavity. Dressings were changed 3 times a week.

We have a rehabilitation instructor who is an amputee and uses both wheelchair and prosthesis. She was involved from day 1 in the training, education and rehabilitation of this patient. She is a valuable resource when it comes to motivating our patients and getting them to look forward.

The patient received a pressure relief program which included standing up several times a day. We also changed her wheelchair as her previous seating position caused unnecessary pressure on her ulcer.

\*PolyMem® Wound dressing and PolyMem Wic® Cavity dressing

Manufactured by Ferris Mfg Corp, Burr Ridge, IL 60527 USA.

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**Left photo 17 April 7 x 9 cm with 6,5 cm length of 1-3,2 cm undermining**

She came to us 19 days after her skin transplantation. The wound was painful and the woman had problems when she sat in a chair. We immediately removed the hydrofiber dressing from the wound and applied polymeric membrane cavity filler in the undermined part and polymeric dressing over the entire wound.

**Middle photo 26 April 7 x 5,2 cm with 1-3 cm undermining**

The wound is closing rapidly. The wound is smaller and has two small islands with epithelialization in the middle of the wound.

**Right photo 4 May 3,2 x 5,9 with 3,2 cm length of 0,5-1,2 cm undermining**

The islands with epithelialized tissue are getting larger and the wound is getting smaller.

**14 May, no undermining, epithelializing from all edges, now only small areas of unepithelialized tissue.**

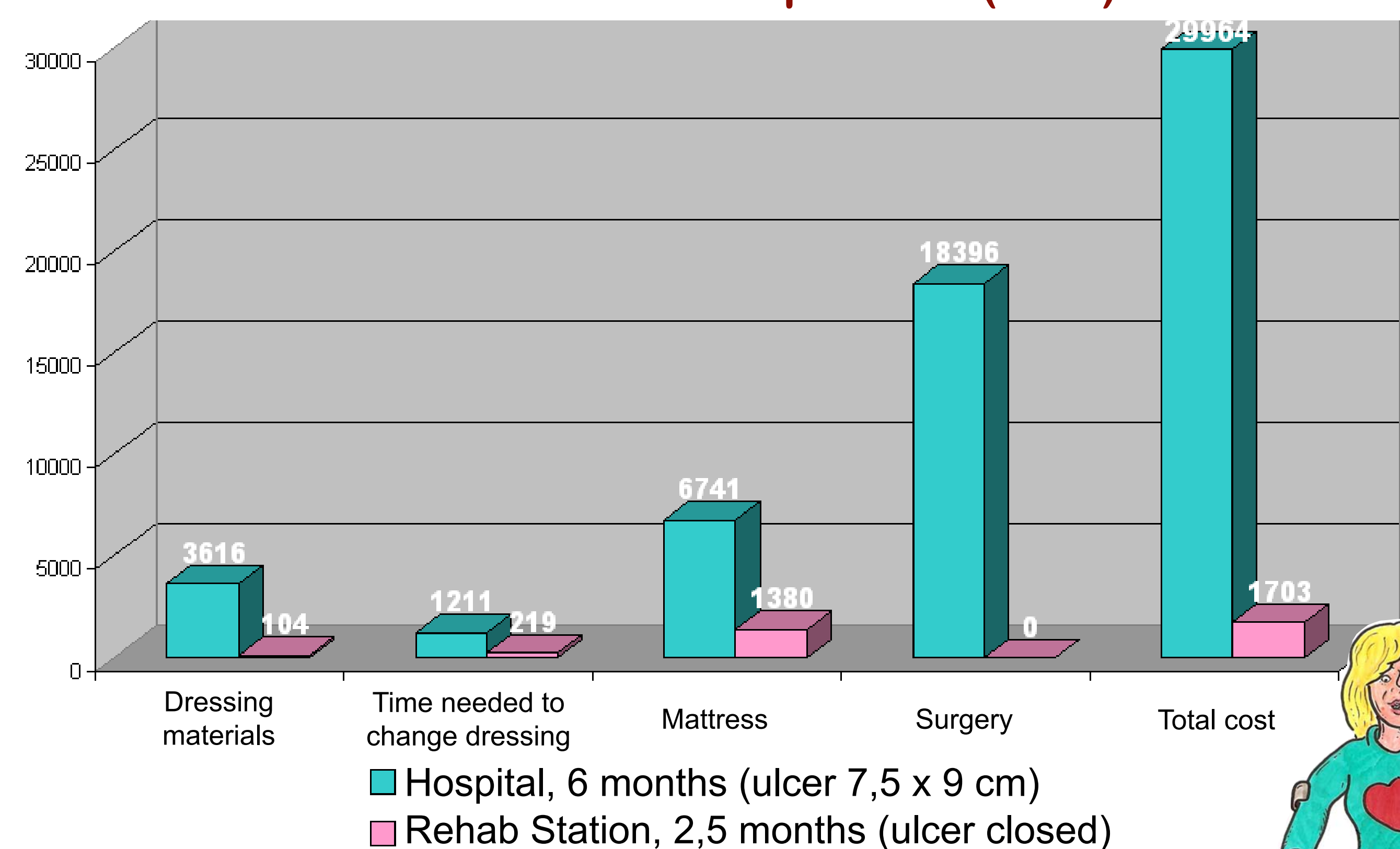
**3 July fully epithelialized. Wound closed.**

## RESULTS

After only 2 weeks the pressure ulcer had significantly decreased in size and the undermining has filled in to become only 1,2 cm deep. After 4 weeks there was no undermining and the size of the ulcer had decreased to 2 smaller, more superficial ulcers. The pressure ulcer completely closed after 2,5 months.

After carefully reviewing the different wound related costs involved, the calculation shows that the surgical clinic had costs at 29.964 EURO and six months (without closing the wound) and the Rehab Stations costs ended at 1.700 EURO and closed the wound in 2,5 months.

## Treatment cost comparison (EURO)



## DISCUSSION

The 6 month old grade IV pressure ulcer took 10 weeks to close after changing to a holistic treatment approach that also included the use of polymeric membrane dressings.

In general, we are convinced that the holistic approach at our Rehab Centre in combination with our choice of dressings help us heal wounds faster.



Six months later the woman had a new flap surgery. This was more of a cosmetic procedure as she had a large crater after her grade IV pressure ulcer had closed.

By this time she is an happy, energetic woman living alone with her children. She is still wheelchair dependent but training hard to learn how to walk with a prosthesis.

