

# Treatment of non-healing ulcers with a dressing based on a innovative nanomaterial

<b>Submission date</b> 21/07/2017	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
		<input type="checkbox"/> Protocol
<b>Registration date</b> 01/08/2017	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
<b>Last Edited</b> 20/09/2023	<b>Condition category</b> Injury, Occupational Diseases, Poisoning	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Chronic ulcers are defined as ulcers that do not heal in six to nine weeks. This type of ulcer is a big health problem all over the world, affecting the life of patients and the health care system. Wound dressings based on a dense fibrillary network (fibers) made of biosynthetic cellulose (BC), such as eiratex® have been proposed to be a good alternative to the different types of dressings that are currently used to treat this type of ulcers. This is due to their similarity to collagen in skin (the protein in the skin that gives skin strength and elasticity). However, traditional BC has been problematic on infected ulcers since fluids as exudate can be trapped under the dressing. The aim of this study is to examine if a wound dressing based on eiratex® can facilitate the healing of the wound and overcome the problems related to the use of the traditional BC.

### Who can participate?

Adults aged 62 to 85 who have a chronic lower limb wound (ulcer) that has not healed after six weeks.

### What does the study involve?

Participants are treated with the eiratex®-based wound dressing. The dressing is applied on the ulcers after surgical removal of the damaged area or tissue, when applicable. The wounds are examined every second day by the attending physician during the first week, and then once per week until final healing. When the wound started to heal, the dressing should be found to adhere to the wound, typically within two days from the start of treatment. In case of lack of improvement of the wound healing, a new debridement was carried out and a new eiratex® membrane was applied to the wound. Once the dressing adhered it is not removed from the wound until it spontaneously fell off. An examination by the attending physician is then performed to assess wound healing.

### What are the possible benefits and risks of participating?

There are no benefits or risks with participating.

### Where is the study run from?

Ewecare AB (Sweden)

When is the study starting and how long is it expected to run for?  
January 2016 to May 2017

Who is funding the study?  
S2Medical AB (Sweden)

Who is the main contact?  
Mr Tobias Sivler  
tobias.sivler@s2m.se

## Contact information

### Type(s)

Public

### Contact name

Mr Tobias Sivler

### Contact details

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## Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

1101

## Study information

### Scientific Title

A clinical trial on patients with non-healing ulcers treated with a modified version of a biosynthetic cellulose named eiratex: Effects on the healing rate, healing time and treatment costs compared to a saline-soaked gauze and other wound dressings.

### Study objectives

Wound dressing based on eiratex® could facilitate the healing of the wound and overcome the problems related to the use of the traditional BC.

Ethics approval required

Old ethics approval format

### **Ethics approval(s)**

As the the product is registered in registered in Sweden as medical device and is CE-marked, according to Swedish law, ethical approval is not necessary for the study. The study itself was not an experimental procedure. The patients were treated and their follow-up data collected only after informed consent. All patient information was blinded so that no information can be back traced to individual patients.

### **Study design**

Observational cross-sectional cohort study

### **Primary study design**

Observational

### **Secondary study design**

Cross sectional study

### **Study setting(s)**

GP practice

### **Study type(s)**

Treatment

### **Participant information sheet**

Not available in web format, please use the contact details below to request a patient information sheet

### **Health condition(s) or problem(s) studied**

Patients with chronic lower-extremity venous ulcers or traumatic ulcers were object of this trial

### **Interventions**

The eiratex® dressing was applied on the wound after surgical debridement, where applicable. The wounds are examined every second day by the attending physician during the first week, and then once per week until final healing.

When the wound started to heal, the dressing was found to adhere to the wound, typically within two days from initiation of treatment. In case of lack of improvement of the wound healing, a new debridement was carried out and a new eiratex® membrane was applied to the wound. In three patients clinical signs of infection were seen. Once the dressing adhered it was not removed from the wound until it spontaneously fell off. An examination by the attending physician was then performed to assess wound healing.

At each treatment visit, information regarding adverse events, medications and other aspects of care since the last visit was acquired. All wounds were photographed before treatment and at each follow-up visit after treatment.

### **Intervention Type**

Procedure/Surgery

### **Primary outcome measure**

Healing time is measured by visual examination from the medical doctor. At each treatment visit, information regarding adverse events, medications and other aspects of care since the last visit was acquired.

### **Secondary outcome measures**

1. Frequency of dressing changes are measured by counting the total number of dressings used during the treatment for each patient, divided by the healing time (in weeks)
2. Number of dressings used are measured by the doctor for each patient. The number of dressings used is related to the number needed to heal the wound

### **Overall study start date**

01/01/2016

### **Completion date**

30/05/2017

## **Eligibility**

### **Key inclusion criteria**

1. Chronic lower limb wounds that were not healed after 6 weeks from the initial injury
2. Treated with eiratex® for the whole treatment
3. Non-infected and infected ulcers
4. Aged from 62 to 85 years old

### **Participant type(s)**

Patient

### **Age group**

Adult

### **Sex**

Both

### **Target number of participants**

8

### **Total final enrolment**

8

### **Key exclusion criteria**

1. Patients with exposure of bone, muscle, ligaments, or tendons
2. Patient with mental disorders were excluded to guarantee a conscious agreement to the participation in this study

### **Date of first enrolment**

01/02/2016

### **Date of final enrolment**

01/03/2017

# Locations

## Countries of recruitment

Sweden

## Study participating centre

**Ewecare AB**

Hejdegatan 68

Linköping

Sweden

58243

# Sponsor information

## Organisation

Ewecare AB

## Sponsor details

Hejdegatan 68

Linköping

Sweden

58243

## Sponsor type

Other

# Funder(s)

## Funder type

Industry

## Funder Name

S2Medical AB

# Results and Publications

## Publication and dissemination plan

Planned publication in a peer reviewed journal is expected in around 10 months after the end of the trial.

## Intention to publish date

30/03/2018

## Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are/will be available upon request from Petter Silver, petter.sivler@s2m.se. Data about the outcomes of the study are stored as excel files and will only be shared upon request.

## IPD sharing plan summary

Available on request

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>		29/03/2018	20/09/2023	Yes	No