

Edema Stocking

- For Doctors and health care professionals

Patients suffering from heart failure, preeclampsia and other disorders which entail edema are now able to monitor their own disease. The Edema Stocking allows patients to enjoy in-depth involvement in their own treatment in collaboration with the health care professionals.

Edema patients will benefit by spending less time and resources on hospital and doctor appointments, and at the same time enjoy, a more intensive and individualized medical treatment; a paramount solution for improved and intelligent health care that is cost effective.

Edema Stocking

- Monitoring accumulation of excess fluid in the lower extremities

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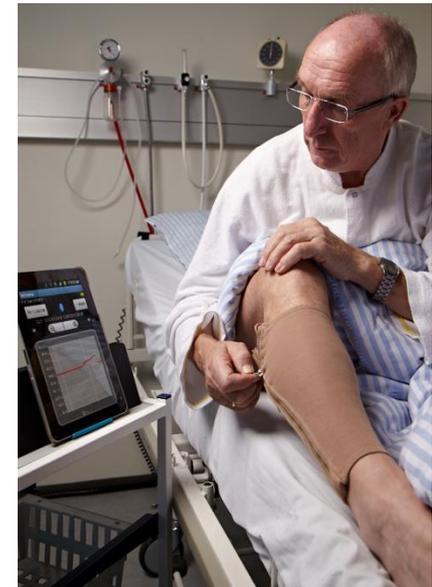


Introduction

Today healthcare staff uses subjective impression for assessment of edema, however only a momentary illusion of the condition is shown. The issue is that the patient's condition is likely to fluctuate whereby stability is uncertain from one day to the next, for instance during the appointment the patient appears fine, however two days later the condition may have exacerbated.

Such rapid changes cannot be monitored by the hospital or general practitioner visits, and requires a more intensive monitoring facility.

Members of healthcare staff do not receive enough data about the condition; therefore there is no guarantee that the patient will receive correct and timely treatment.



Edema Stocking

Product key features:

- The close-fitting, ergonomic design of the stocking ensures that the placement of sensors is kept at the same position, to ensure precise and reliable data
- Functions as a compression stocking
- Non-invasive and comfortable monitoring
- Android application for online monitoring of measurements

Edema Stocking

The Edema Stocking is a device that monitors and measures changes in leg volume for normal and patients suffering from edema in the lower limbs.

The fabric of the stocking is specially designed and functions as a compression stocking. The design makes it possible to adapt the size and circumference of the stocking, by being able to zip different insert sizes on to the electronic part - S, M, L and XL.

The measured data is wirelessly transferred to an advanced android application near the patient, and also to the clinicians via real-time technique or in required data packages, making monitoring more secure and reliable.

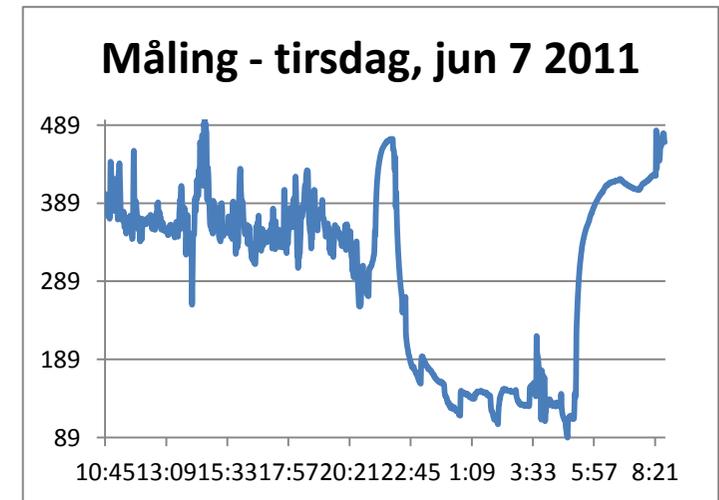
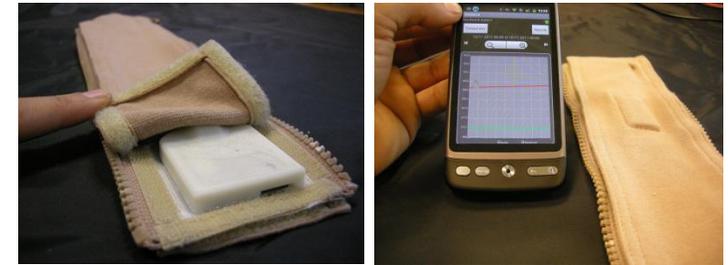
Telecare

Telecare is a technological concept that allows a modern approach to patient monitoring and intensive surveillance of the disease condition.

The extent of this detailed monitoring approach for leg edema opens new perspectives of individualized medical therapy which meets the patients' actual needs and requirements instead providing an average dose of medication.

The Edema Stocking and Telecare

The Edema Stocking can be used as an integrated part of telecare by adapting and stabilizing medication. Patients suffering from heart failure, pre-eclampsia and other edema related prognosis can utilize the Edema Stocking as an integrated element of the telecare concept and thus open for a new possibility of patient tailored treatment of their disease condition.



Benefits

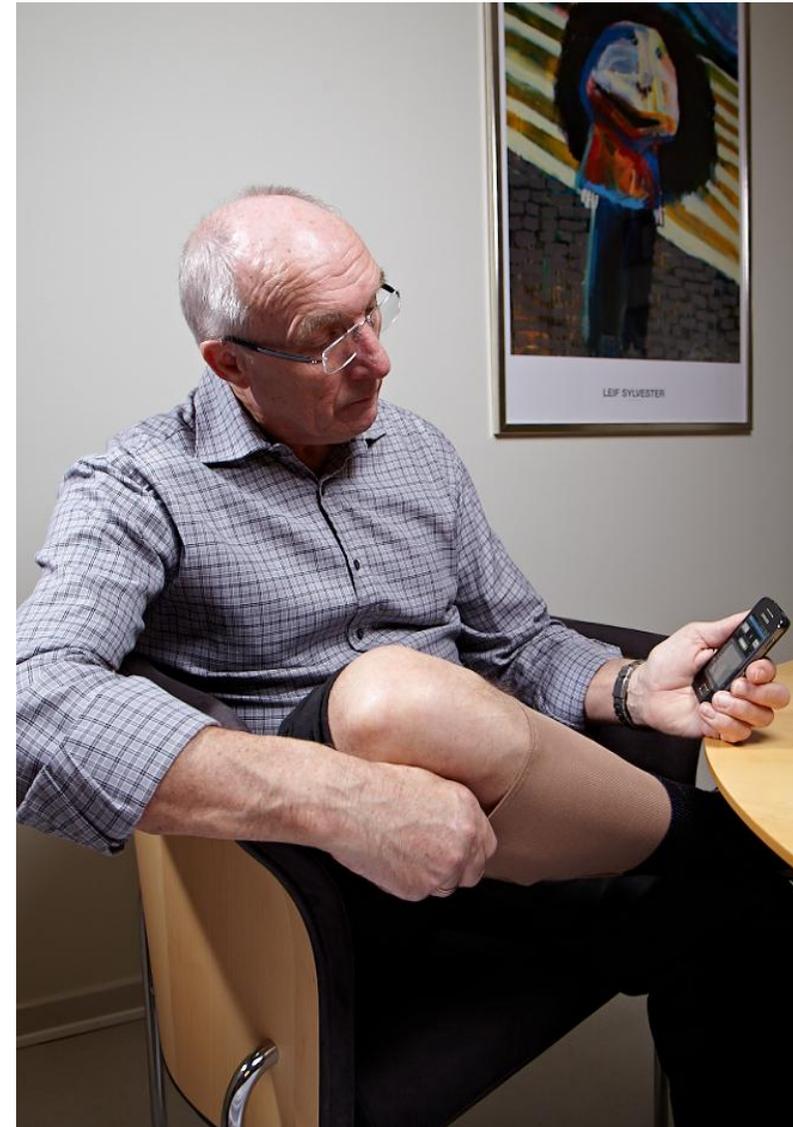
By health care staff using the Edema Stocking as an integrated part of the treatment against edema, it is possible to receive more intensive, individual and adjusted medical treatment.

The Edema Stocking is an objective tool that benefits both patients and health care staff. It will be possible to provide continuous data and an illustration of the conditions flow.

The Intelligent Stocking provides hitherto unsurpassed detailed information about fluid accumulation and excretion rates.

The Edema Stocking adds benefits to improve quality of the treatment:

- By using the Edema Stocking combined with the telecare application, makes it feasible to receive very precise records of small changes in leg volume
- More qualified and comprehensive level of online communication and forums are available
- Both doctor and patient are able to respond to changes and pre-detect deterioration of the disease
- A large reduction of outpatient visits to the GP and hospital equal allows more efficiency and cost effectiveness
- For home use the stocking has a similar compression rate as a normal compression stocking with the ability to constantly monitor leg volume, and can be used additional as a pedagogical tool to monitor the effect of compression
- Ability to monitor and detect early signs of water accumulation

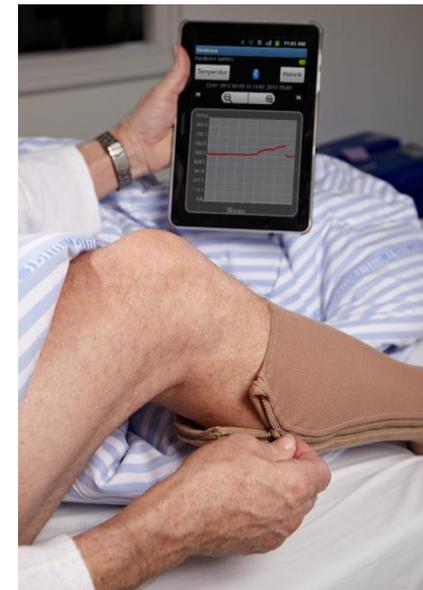


What will it take?

In order to use this new technique, it requires that health care staff is willing to educate patients in the use of the mobile phone application and the stocking. The functionality of both units is designed to be user-friendly, so that even non-technical individuals of all levels should be able to use the tool.

Instead of single data received at each visit by the patient, health care staff must be prepared to receive large quantities of data due to the continuous measurements. Although, data will be more manageable, it will be a matter of habituation.

These promising perspectives for modern monitoring needs scientific validation before introduction into daily clinical practice is made on a larger scale. Therefore, the Edema Stocking is initially introduced as a scientific tool for monitoring of fluid accumulation and expulsion at a hitherto unprecedented level of detail. Based on scientific validation the Edema Stocking opens new therapeutic options as a cornerstone in patient tailored treatment.



Status

History

The Edema Stocking concept was conceived by Prof. J. Michael Hasenkam, where he wanted to find a simple, effective and reliable solution for patients and medical staff to measure significant changes in volume of the lower limbs, and the theory of using a stocking with an electronic strain gauge was created.

Ohmatex ApS is an intelligent textile company that was approached to explore the feasibility of the concept and is now developing the final stages of the Edema Stocking.

Status

The first version of the stocking has been designed and developed, and is able to send real-time data via a Bluetooth connection for mobile phones. Data can be stored on an excel file that is directly sent for clinical evaluation. It is also possible to store data on an SD card.

A new spin-off company, Edema ApS, has been launched with Ohmatex ApS and prof. Michael Hasenkam as owners, working exclusively with the development of medical and biological measuring equipment concerning edema.

Contact

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