System description

As the system is intended to be used in home-based rehabilitation, it consists of low-cost, portable and lightweight components.

10,1” Tablet computer with separate power supply
Tablet can be connected to external display/TV.

Diagnostic and therapeutic software
The software is being developed in two variants:

a) for medical facilities
b) for home-based therapy

Portable stabilometric platform with separate power supply
Size: 52 x 33,5 x 5,3 cm
Weight: 3,5 kg

The example of a simple therapeutic scene where the patient has a task to move the displayed object by changing the position of his center of gravity.

Homebalance
Interactive system for home-based therapy of balance disorders
Variable usage

Homebalance is an interactive system for home-based therapy of balance disorders.

This therapeutic system is aimed for patients with balance and motor skill disorders. It is also useful in therapy of patients after orthopedic surgery. The system can likewise serve wheelchair users, who can exercise on the platform in a seated position.

Homebalance is suitable for use in therapy of patients of any age category, in healthcare facilities or at home.

Game-like therapy

The therapy includes active repetitive game-like trainings. Standing on the stabilometric platform, the patient is instructed to move the displayed item by shifting their center of gravity. Tasks are also combined with cognitive training.

The therapy has a beneficial effect on stability, coordination, spatial orientation, length of reaction time, memory, attention, motivation for regular exercise and psychological well-being of the user.

The system can be used for effective home-based therapy, using “the virtual therapist” and for everyday objective evaluation of a current health status and progress of the patient. This data can also be collected and shared to the therapist to control the patient’s improvement. The system provides fast and simple objective diagnostics of balance disorders.

Availability

Diagnostic and therapeutic system Homebalance is in the final stage of development. Currently is realized a major clinical study to verify the effect of the interactive home-based rehabilitation.

Expected launch is scheduled for the July 2015. Expected product price is 20,000 CZK. Pre-orders can be sent to info@homebalance.cz.

The project is currently looking for partners among healthcare professionals and in the commercial sector for cooperation and further development of this device.

Contacts

Clinical studies
MUDr. Markéta Janatová
T +420 776 643 102

Contact for commercial partners
Ing. Vojtěch Malina
T + 420 725 005 630

Who are we

The system for diagnostics and therapy of stability disorders is being developed by interdisciplinary research team at The Support Center for application outputs and spin-off companies at the 1st Faculty of Medicine, Charles University in Prague, branch office in Kladno, in the Czech Republic.

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