

Seven month experience incorporating Lokomat into daily clinical practice - Haapsalu Neurological Rehabilitation Centre's example

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Introduction

Haapsalu Neurological Rehabilitation Centre (HNRC) is a modern, 102-bed rehabilitation hospital in Estonia. The main goal of HNRC is to provide high-quality, evidence-based, client-centred and comprehensive services. In addition to its everyday hospital work, HNRC also serves as a practical training base for young specialists and is a reliable partner in various research and development projects. HNRC's daily work is to restore, improve and maintain all aspects of our patient's functional ability through multidisciplinary teamwork. Rehabilitation teams include the following specialists: physician, nurse, caregiver, physiotherapist, occupational therapist, psychologist, speech-language pathologist, social worker. Individual goals are set for each patient and all people involved work together to achieve them. The most important objective is for the patients to achieve maximum possible independence in their daily activities. There are 3 diagnose-based specialised teams: 1) spinal cord injury; 2) stroke/traumatic brain injury and 3) children's neurological pathologies.

HNRC is a key partner in Centre of Excellence in Health Promotion and Rehabilitation. In November 2012 several robotic devices, including LokomatPro, were acquired as a part of above-mentioned project.

Aim of the study

The study is about application of LokomatPro.



Methods

6 physiotherapists, 2 from each team, participated the initial Lokomat training carried out in November 2012 by 2 qualified experts by Hocoma. Following the training, the physiotherapists practised on healthy subjects for 2 weeks, 3-4 sessions a week. The duration of a physiotherapy session in HNRC is 45 minutes and the aim was to keep the Lokomat sessions in the same time-frame. For the first 4 months the physiotherapists worked in pairs after which they were ready to continue working individually. Each diagnose-based team can schedule up to 3 Lokomat sessions per day for their patients. 2-3 sessions per week per patient is the current practice in HNRC. The sessions are carried out by the 6 trained therapists. The patients are referred by their physiotherapists after approval of the physician. Patients' physiotherapists are also advised to be present during the first session in order to share information and, in case of children, provide safe and comfortable environment.

Results

During the first session approximately 30 minutes are used for the measuring of the patient and choosing the appropriate harness and cuffs and 15 minutes for gait training, during which additional adjustments are made if necessary. The initial goal for the following sessions was to use up to 15 minutes for the setup and 30 minutes for training. All the therapists were able to fulfil the goal by the time they started working individually. However, the duration of the setup is highly dependent on the condition of the patient. If the cuff sizes and leg length adjustments can be made prior to the training, less than 15 minutes may be necessary for the setup. The feedback from the patients as well as the therapists has been very positive. In autumn 2013 an advanced training has been scheduled.

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