Monotoring capacity and performance of stroke patients using instrumented clothing

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1) It is possible to record data delivering insights in the actual performance of activities of daily life using the Interaction system in stroke patients in the home environment. 2) It is expected that standard clinical test scores do not...

Ethische beoordeling	Positief advies
Status	Werving gestart
Type aandoening	-
Onderzoekstype	Observationeel onderzoek, zonder invasieve metingen

Samenvatting

ID

NL-OMON22497

Bron
NTR

Verkorte titel
-

Aandoening

stroke, instrumented clothing, monitoring, home situation.
beroerte, geïnstrumenteerde kleding, monitoren, thuissituatie

Ondersteuning

Primaire sponsor: Roessingh Research and Development, Enschede
Overige ondersteuning: European Commission under the 7th Framework Programma: FP7-ICT-2011-7-287351

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Evaluation of possible data loss (% of successful data collection), evaluation of the data (temporal, kinematic, kinetic and EMG of reaching tasks, walking and balance) and subjective evaluation of the system.

Toelichting onderzoek

Achtergrond van het onderzoek

With the aging of the population, the incidence of stroke is increasing, especially in western countries. Depending on the patient's impairments as a result of the stroke, a patient-specific rehabilitation program is started. When the patient has an adequate capacity to live at home, the patient is discharged and sent home. Sometimes patients show deterioration after leaving the rehabilitation centre. In some cases this is so severe that re-admission to a rehabilitation centre is necessary. Many times, the cause of the deterioration is unknown, since the patient's period at home is like a black-box for the physician. If the physician would be able to monitor the patient's motor function at home, he could intervene in case of deterioration and prevent an expensive re-hospitalisation. For this purpose, we develop instrumented clothing containing sensors that can eventually result in daily-life monitoring. In this pilot study, balance, walking and reaching tasks of stroke patients will be assessed in the home situation. The results will be evaluated and related to regular clinical tests and a predefined task, performed in a controlled laboratory setting.

Doel van het onderzoek

1) It is possible to record data delivering insights in the actual performance of activities of daily life using the Interaction system in stroke patients in the home environment.
2) It is expected that standard clinical test scores do not necessarily correlate with performance scores measured in the home setting.

Onderzoeksopzet

There will be 3 measurement sessions, all performed within one week: 1 in a controlled laboratory setting, 2 in the home setting. Alle sessions will take about 3 hours.

Onderzoeksproduct en/of interventie

N/A: observational study
open, non-randomized proof of concept pilot study including measurements in a controlled setting and measurements in the home setting while wearing instrumented clothing.

Contactpersonen

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

- previous stroke in the personal history, at least 6 months ago
- not receiving in-patient therapy
- age: 18 or above
- able to walk, a walking aid (unilateral or bilateral) is permitted
- able to read and understand questionnaires and able to execute commands
- able and willing to participate in the study
- signed informed consent

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

- other musculoskeletal problems influencing walking, balance and reaching.

Onderzoeksopzet

Opzet

Type:	Observationeel onderzoek, zonder invasieve metingen
Onderzoeksmodel:	Parallel
Toewijzing:	N.v.t. / één studie arm
Blindering:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

Deelname

Nederland

Status:	Werving gestart
(Verwachte) startdatum:	01-04-2014
Aantal proefpersonen:	10
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	26-03-2014
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL4341

Register	ID
NTR-old	NTR4481
CCMO	NL47854.044.14

Resultaten

Samenvatting resultaten
N/A