Circuit class training to improve the arm and hand function after stroke

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Patients improve more in upper limb function after CCT in comparison to usual care. Patients are equally satisfied with both CCT and usual care as therapy. Patients have more active minutes during CCT in comparison to usual care.

Ethische beoordeling	Positief advies
Status	Werving gestopt
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON21297

Bron
NTR

Verkorte titel
Pilot Class Circuit Training

Aandoening

Stroke

Ondersteuning

Primaire sponsor: University Medical Center Groningen
Overige ondersteuning: UMCG

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

Fugl-Meyer Assessment - Upper Extremity (FMA-UE)

Toelichting onderzoek

Achtergrond van het onderzoek

Background
After stroke, 69 -88% of the patients have upper limb paresis. Task specific training has proven to be effective to increase upper limb function. However providing individual task specific training is time demanding, expensive and mentally demanding for therapists. To lower the pressure for therapists, it has been proposed to train in groups with different work stations, also known as class circuit training (CCT). The therapist has prepared a set of workstations that are used to train activities of daily living (ADL). In the literature, no studies exist that investigate CCT for the upper extremity using ADL activities.

Main research question
The aim of this pilot is to compare the effectiveness of CCT to usual care (UC) on the improvement of arm/hand function in patients in the subacute phase of stroke. Secondary objectives are to investigate the patient satisfaction, therapist load and active time during therapy sessions.

Design (including population)
Subacute stroke patients, admitted to the rehabilitation ward. Patients should be able to perform finger flexion and have movement in the shoulder.
In this non-randomized pilot, patients will train 4 weeks in either the CCT group or the UC group, based on when they enter the study.
Outcomes are arm function tests, questionnaires about the enjoyment, mental and physical load, satisfaction with therapy, perceived improvement and pain. Once a week, activity is monitored in a session.

Expected results
We expect that patients train more different skills at the same time during CCT and therefore we think that the arm function will improve more in comparison to UC.

Doel van het onderzoek

Patients improve more in upper limb function after CCT in comparison to usual care.
Patients are equally satisfied with both CCT and usual care as therapy.
Patients have more active minutes during CCT in comparison to usual care.

Onderzoeksopzet

Patients that enter the rehabilitation center will be checked for eligibility. The patient is measured before the start of the intervention (pre) and after 4 weeks of intervention (post). The VAS, containing questions regarding pain and perceived improvement of arm function, will be asked daily. The PACES-8, NASA-TLX and Actigraph are measured once a week on Friday. The CSQ-8 will be asked at the end of the study (post)

Onderzoeksproduct en/of interventie

Class Circuit Training (CCT): The therapist has prepared a set of standardized workstations that are used to train activities of daily living (ADL). During CCT, patients train intensive repetitive task specific activities in small groups at the work stations.
Usual care: The therapist and patient have defined goals that are worked on during group therapy. This can be either alone or together with other patients.

Contactpersonen

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Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

Patients: Adult patients within 4 weeks of first stroke onset, who did not started rehabilitation therapy yet. Patients should be able to perform finger extension 3 times (FMA extension ≥ 1) and shoulder abduction (Motricity Index > 14). Patients should be able to understand and execute simple instructions, understand the Dutch language and be able to provide informed consent.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

Patients: Severe aphasia, severe cognitive problems (Montreal Cognitive Assessment≤20),

severe neglect (star cancellation test≤44), severe spasticity (Passive Resistive to Passive Movement ≥4), severe pain (VAS≥60) and severe sensory problems (Erasmus modification Notthingham Sensory Assessment≤24). Cannot hold attention to task for 2 minutes.

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Toewijzing:	Niet-gerandomiseerd
Blindering:	Open / niet geblindeerd
Controle:	Geneesmiddel

Deelname

Nederland

Status:	Werving gestopt
(Verwachte) startdatum:	01-10-2020
Aantal proefpersonen:	12
Type:	Werkelijke startdatum

Voornemen beschikbaar stellen Individuele Patiënten Data (IPD)

Wordt de data na het onderzoek gedeeld: Nog niet bepaald

Ethische beoordeling

Positief advies

Datum:	24-08-2020
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	NL8844
Ander register	METC Groningen : METc 2020/413

Resultaten