Citation for final published version:

Drew, Cheney , Hamana, Katy ORCID: https://orcid.org/0000-0001-5213-253X, Williams-Thomas, Rhys, Playle, Rebecca , Busse, Monica and Quinn, Lori ORCID: https://orcid.org/0000-0002-2982-923X 2022. J16 Exploring the acceptability and key components for success of a 12 month physical activity intervention in early to mid-stage Huntington's disease. Journal of Neurology, Neurosurgery and Psychiatry 93 , A100. 10.1136/jnnp-2022-ehdn.266 file

Publishers page: http://dx.doi.org/10.1136/jnnp-2022-ehdn.266
Although used as a palliative measure, the benefits are such that we think this should be considered an option for rescue treatment in HD.

**J15** AKATHISIA AS A SIDE EFFECT OF TETRABENAZINE TREATMENT IN HD PATIENTS

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10.1136/jnnp-2022-ehdn.265

**Background** Only symptomatic treatment is currently available for Huntington’s disease (HD). One of the drugs used to treat chorea is Tetrabenazine, the effectiveness of which has been confirmed in the clinical trials. The effectiveness of the therapy is however limited by the occurrence of various side effects.

**Aims** Demonstration of akathisia as an adverse effect requiring immediate discontinuation of Tetrabenazine therapy due to significant clinical deterioration in HD patients at stable doses of the remaining drugs.

**Methods** Assessment of the proportion of patients with complications of akathisia among all Tetrabenazine-treated, ENROLL-HD participants in the Institute of Psychiatry and Neurology, Warsaw. For each patient history was taken, UHDRS Motor, TFC, Function, HADS-SIS, medical observation of the patient’s behavior were performed.

**Results** 8 out of 159 (5%) patients treated with Tetrabenazine developed akathisia. The scales used did not reflect the severity of akathisia in these patients. During the researcher’s observation during the visit, these patients were very restless, they were walking around, they were unable to focus attention.

**Conclusions** Some patients develop paradoxical reactions during Tetrabenazine therapy, with an increase of motor agitation, and thus a general deterioration of the patient’s functioning. Clinically severe akathisia is found. The scales used to assess HD patients do not reflect the degree of akathisia occurring as a complication of Tetrabenazine treatment. For patients on this therapy, we suggest using the Barnes Akathisia Scale (BARS) for a more adequate assessment of their clinical condition. The results require confirmation in a larger cohort.

**J16** EXPLORING THE ACCEPTABILITY AND KEY COMPONENTS FOR SUCCESS OF A 12 MONTH PHYSICAL ACTIVITY INTERVENTION IN EARLY TO MIDDLE STAGE HUNTINGTON’S DISEASE

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10.1136/jnnp-2022-ehdn.266

**Background** The PACE-HD trial investigated the feasibility of conducting a randomised controlled trial of a 12-month physical activity intervention delivered by physiotherapists. The PACE-HD intervention was acceptable to HD participants and they felt supported by the intervention therapists. Knowledge gathered in this process evaluation can inform successful implementation, potential causal mechanisms and contextual factors that may affect intervention outcomes.

**Method** Intervention delivery and acceptability was assessed via an end of study questionnaire completed by participants randomised to receive the intervention as part of an evaluation framework. Questionnaires required respondents to rate items relating to various intervention components on a scale from 1 [strongly disagree] to 5 [strongly agree] and additional open text questions. Scores of 4 and above were rated as positive.

**Results** Twenty participants completed the questionnaire. Responses regarding the support of therapists were largely positive (99%) with full enjoyment of and satisfaction with coach-led sessions (100%), plus high enjoyment of self-supervised sessions (85%). Only some (65%) participants reported that the provided workbook aided goal setting and its use was not frequent. Most (80%) participants used the Fitbit to monitor their physical activity despite only 55% agreeing that it was easy to use and 65% that its use was motivational. Participants indicated increased confidence for physical activity after 12 months; 90% of whom stated that they felt confident continuing with physical activity after the trial.

**Outcome** The PACE-HD intervention was acceptable to HD participants and they felt supported by the intervention therapists. Knowledge gathered in this process evaluation can inform successful implementation, potential causal mechanisms and contextual factors that may affect intervention outcomes.

**J17** HD-DRUM – A NOVEL COMPUTERISED DRUMMING TRAINING FOR MOVEMENT AND COGNITIVE ABILITIES IN PEOPLE WITH HUNTINGTON’S DISEASE – APP DEVELOPMENT AND PROTOCOL OF A RANDOMISED CONTROLLED FEASIBILITY STUDY

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10.1136/jnnp-2022-ehdn.267

**Background** Huntington’s Disease (HD) causes cell loss in the basal ganglia (BG) that are important for cognitive and motor functions. Learning novel drumming sequences requires BG abilities of attention, multi-tasking, and the planning and execution of motor sequences, all of which are affected in HD. Previously, we observed that rhythmic Bongo drumming improved attention and motor abilities and strengthened callosal white matter pathways in people with HD.

**Aims** To assess the feasibility of HD-DRUM, a novel computerised drumming training app that optimises the training difficulty for each user with an automatic stair-case procedure. To obtain estimates of effects of HD-DRUM on cognitive and motor abilities and on white and grey matter microstructure in motor and executive networks of the brain.

**Methods** We will assess the feasibility (recruitment, retention, acceptability, adherence) of three months of HD-DRUM (15 min per day, 5 days a week) in 50 people with HD at pre-manifest to mild-moderate manifest stages recruited from five clinics in the UK. They will be randomly allocated to the training or a standard-care control group. Further, 25 healthy control participants will be recruited who will also use HD-DRUM. All participants will undergo cognitive and motor assessment (ENROLL protocol) and magnetic resonance imaging in a larger cohort.