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Dopamine Augmented Rehabilitation in Stroke

Submission date 07/09/2009	**Recruitment status** No longer recruiting	[X] Prospectively registered [X] Protocol [_] Statistical analysis plan [X] Results [_] Individual participant data
Registration date 04/12/2009	**Overall study status** Completed	
Last Edited 29/05/2019	**Condition category** Circulatory System	

Plain English summary of protocol

Background and study aims
Stroke is the most common cause of severe disability (in the UK the annual incidence of first stroke is 100,000), with the number of disabled stroke survivors increasing due to aging population demographics. Stroke has a huge impact, leaving over a third of affected people with lasting disability affecting self care. One year after stroke, 31% are still dependent for outside mobility and 15% for inside mobility. Although acute stroke interventions can reduce mortality and morbidity, it is widely acknowledged that rehabilitation remains the cornerstone treatment. For stroke sufferers, learning is an essential process by which recovery of mobility and arm function occurs, either through re-learning to use the affected body parts and/or learning to compensate with the lesser affected side. There is promising evidence which indicates that combining certain drugs with physical and occupational therapy may improve the recovery of arm and leg movements essential to day-to-day activities such as walking. The purpose of this study is to find out if combining L-dopa (using co-careldopa, a widely available inexpensive drug commonly used to treat Parkinsons disease) with routine occupational and physical therapy enhances the effect of this therapy and whether it further improves recovery of functionally useful arm and leg movement in people with first ever stroke.

Who can participate?
Participants diagnosed with a new or recurrent clinically diagnosed stroke and who expected to need rehabilitation treatment.

What does the study involve?
Participants will be randomly allocated to receive either active drug (co-careldopa) or a placebo (dummy) tablet 5 to 42 days after their stroke. Participants will receive their allocated treatment about 45-60 minutes before routine occupational or physical therapy sessions, up to a maximum of twice per day over a 6-week period. All participants will receive the usual stroke care within both hospital and post-discharge settings. Participants will be assessed by an independent researcher using pre-determined outcome measures at baseline, 8 weeks, 6 months and 12 months after study entry. Where applicable, caregiver consent will also be sought to allow assessment of carer burden.

What are the possible benefits and risks of participating?
Not provided at time of registration.

Where is the study run from?
Run from Leeds CTRU with different sites in the UK.

When is the study starting and how long is it expected to run for?
October 2010 to March 2014.

Who is funding the study?
Medical Research Council (MRC) and National Institutes of Health Research (NIHR), UK

Who is the main contact?
Suzzane Hartley, Head of Trial Management
S.Hartley@leeds.ac.uk

Contact information

Type(s)
Scientific

Contact name
Prof Gary Ford

Contact details
Academic Department of Rehabilitation Medicine
Faculty of Medicine and Health
University of Leeds
Level D, Martin Wing
Leeds General Infirmary
Leeds
United Kingdom
LS1 3EX

Additional identifiers

Protocol serial number
EME 08/43/61

Study information

Scientific Title
Does Cocareldopa treatment in combination with routine NHS occupational and physical therapy, delivered early after stroke within a stroke rehabilitation service, improve functional recovery including walking ability and arm function?

Acronym
DARS

Study objectives
Current study hypothesis as of 12/02/2013:
Primary objective:
The proportion of patients in both treatment groups who are walking independently at 8 weeks

post-randomisation (as measured by a score of 7 or higher and who also answer yes to item number 7 on the Rivermead Mobility Index).

Secondary objectives:
Impact on physical functioning and mood at 8 weeks, 6 months and 12 months
1. To compare the proportion of patients who are walking at 6 and 12 months post-randomisation in the two groups (as measured by a score of 7 or higher on the Rivermead Mobility Index and who also answer yes on item number 7)
2. To compare activities of daily living, mobility and dependency (Rivermead Mobility Index (continuous), Barthel Index, Modified Rankin, Nottingham Extended Activities of Daily Living Scale, ABILHAND) between groups.
3. To compare psychological distress / mood between the two groups (General Health Questionnaire 12)
4. To compare carer burden between groups using the Caregiver Burden Scale
5. To investigate cost effectiveness of Co-careldopa and conventional rehabilitation treatments (EQ-5D to quantify care costs)

Investigate potential moderators and mediators of effect at 8 weeks, 6 months and 12 months
1. To investigate whether baseline patient clinical characteristics and investigations (e.g. routine Brain CT scanning) help to predict those who might benefit from Co-careldopa augmented rehabilitation
2. To investigate whether key factors (e.g. fatigue (Fatigue Assessment Scale)), concurrent musculoskeletal symptoms, signs and pain (using the MSK SSP manikin), and cognitive function (using the Montreal Cognitive Assessment) influence the short and long term effect of Co-careldopa on physical functioning

Investigation of implementation within NHS
1. To assess the adverse event profile associated with combination treatment (NHS stroke rehabilitation treatment linked with Co-careldopa)
2. To investigate the practical implications of delivering this intervention within routine NHS acute and early community care of people with stroke
3. To assess acceptability of Co-careldopa treatment to stroke patients (study drug adherence will be measured and a semi structured interview will be undertaken with participants at the week 8 assessment)

Previous study hypothesis as of 10/03/2010 and until 12/02/2013:
Primary objectives:
The proportion of participants walking as defined by a score of 7 or above on the Rivermead Mobility Index (RMI), in L-dopa and control group.

Secondary outcomes:
Impact on physical functioning and mood at 8 weeks, 6 months and 12 months:
1. To compare the proportion of patients who are walking at 6 and 12 months post-randomisation in the two groups, as measured by a score of 7 or higher on the Rivermead Mobility Index
2. To compare activities of daily living and dependency (Barthel Index, Northwick Park Dependency Score, Nottingham Extended Activities of Daily Living Scale, ABILHAND) between groups, to compare psychological distress/mood between the two groups (General Health Questionnaire 12)
3. To compare carer burden between groups using the Caregiver Burden Scale
4. To investigate cost effectiveness of co-careldopa and conventional rehabilitation treatments (EQ-5D, Northwick Park Dependency Score to quantify care costs)

Investigate potential moderators and mediators of effect at 8 weeks, 6 months and 12 months:
1. To investigate whether baseline patient clinical characteristics and investigations (e.g. routine brain computed tomography [CT] scanning) help to predict those who might benefit from L-dopa augmented rehabilitation
2. To investigate whether key factors (e.g. fatigue [Fatigue Assessment Scale], concurrent musculoskeletal symptoms, signs and pain [using the MSK SSP manikin]) influence the short and long term effect of L-dopa on physical functioning

Investigation of implementation within NHS:
1. To assess the adverse event profile associated with combination treatment (NHS stroke rehabilitation treatment linked with oral co-careldopa)
2. To investigate the practical implications of delivering this intervention within routine NHS acute and early community care of people with stroke
3. To assess acceptability of co-careldopa treatment to stroke patients (study drug adherence will be measured and a semi structured interview will be undertaken with participants at the week 8 assessment)

Initial information at time of registration:
Primary objectives:
Measuring the effectiveness of L-dopa - does 6 weeks L-dopa treatment in combination with routine NHS physical therapy and occupational therapy treatment delivered to people with first stroke within a stroke service improve short term (8 weeks) and long term (6, 12 months) functional motor recovery?

Secondary objectives:
1. Does L-dopa treatment in early stroke in combination with routine NHS physical therapy and occupational therapy treatment delivered within a stroke service improve extended activities of daily living and reduce carer burden?
2. What are the practical implications of delivering this intervention during routine NHS management of people with stroke and what are the adverse events associated with combination treatment?
3. Is L-dopa in conjunction with rehabilitation treatment a cost-effective intervention for the NHS?
4. Is this additional treatment acceptable to stroke patients?
5. Do baseline patient clinical characteristics and investigations (e.g. routine brain computed tomography [CT] scanning) help us to predict those that might benefit from L-dopa augmented rehabilitation?

Link to EME project website: http://www.eme.ac.uk/projectfiles/084361info.pdf
Link to protocol: http://www.eme.ac.uk/projectfiles/084361protocol.pdf

On 10/03/2010 this record was extensively updated due to ethics committee approved changes to the protocol. All changes can be found under the relevant section with the above update date. At this time, the trial dates were also updated, the initial trial dates were as follows:
Initial anticipated start date: 20/09/2010
Initial anticipated end date: 20/03/2012

On 13/02/2013 the following changes were made to the trial record:
1. The scientific title was previously "Does levodopa drug treatment in combination with routine UK National Health Service (NHS) occupational and physical therapy, delivered early after stroke within a stroke rehabilitation service, improve functional recovery including walking ability and

arm function? A multicentre randomised double blind placebo-controlled trial"
2. The anticipated end date was updated from 20/04/2012 to 31/03/2013

13/02/2013: Please also note that recruitment began on 18/05/2011 and is ongoing.

On 15/08/2013 the anticipated end date was changed from 31/03/2013 to 01/01/2014.

On 15/04/2014 the anticipated end date was changed from 01/01/2014 to 31/03/2014. The trial is now closed to recruitment and in follow up.

Ethics approval required
Old ethics approval format

Ethics approval(s)
North West 2 Research Ethics Committee (REC) - Liverpool Central, 11/02/2010, ref: 10/H1005/6

Study design
Multicentre prospective randomised double-blinded placebo-controlled trial

Primary study design
Interventional

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Stroke

Interventions
Current interventions as of 12/02/2013:
572 participants with stroke will be randomised to receive Co-careldopa or placebo within 5 42 days post stroke.
Experimental Intervention:
Co-careldopa will be given to patients as a single oral tablet 45 - 60 minutes before physical or occupational therapy sessions (section 5.1) focused on motor skills (e.g. walking, dressing) or 45 - 60 minutes before training at the perceptual/motor task. The peak effect is 0.5 to 2 hours after an oral dose and plasma half-life is 1 to 3 hours. This dose and timing of the medication reflects current evidence on use of Co-careldopa in this context. Study drug will be administered not more than twice during any day (if the patient is having more than two physical or occupational therapy sessions). Co-careldopa /placebo augmented rehabilitation treatment will be continued for six weeks (less if the patient is clinically deemed not to require further rehabilitation treatment). The use of intermittent single doses for short periods is anticipated to result in a low rate of adverse effects such as dyskinesias. Nausea is a recognised side effect of Co-careldopa. Postural hypotension is a recognised side effect of the study drug. We will measure blood pressure in all participants at baseline assessment (those receiving active and placebo IMP) and at any time if patients experience falls or symptoms of postural hypotension. The blister packs will be packaged so that the first two doses of those randomised to receive active drug will be half dose (i.e. 62.5 Co-caredopa) to reduce the risk of early adverse effects and reflecting clinical practice (in the large multicentre trial). Treatment will be stopped if a patient has symptomatic postural hypotension. As the patients will be started on study medication in hospital we will be able to closely observe patients for presence of adverse medication related events. We

anticipate adverse effects which require Co-careldopa to be stopped on clinical grounds occurring in approx 10% patients. For the multicentre study assuming a maximum of 2 sessions of physiotherapy or occupational therapy per day for 30 days over 6 weeks, each individual will have a maximum of 60 active or placebo tablets over study period.
Control intervention:
Placebo tablet that is identical in preparation to the study drug but without the active medication. The placebo will be given to patients as a single oral tablet 45 - 60 minutes before rehabilitation treatment. Safety and treatment stopping rules will be as per active intervention. We will outsource production of trial medication with supply in blister packs. The placebo will have the same appearance and packaging as active drug (Sharpe Clinical Services). Routine physical and occupational therapy will be administered to all patients in both groups. All treatments recorded using a standardised recording sheet.

Previous interventions until 12/02/2013:
572 people with stroke will be randomised to receive L-dopa and caridopa or placebo within 7 - 14 days post-stroke.
Experimental intervention:
L-dopa 100 mg (as co-careldopa in conjunction with carbidopa [25 mg]) will be given to patients as a single oral tablet 45 - 60 minutes before physical or occupational therapy sessions (section 5.1) focused on motor skills (e.g. walking, dressing) or 45 - 60 minutes before training at the perceptual/motor task. The peak effect is 0.5 to 2 hours after an oral dose and plasma half-life is 1 to 3 hours. This dose and timing of the medication reflects current evidence on use of L-dopa in this context. Study drug will be administered not more than twice during any day (if the patient is having more than two physical or occupational therapy sessions). L-dopa/placebo augmented rehabilitation treatment will be continued for six weeks (less if the patient is clinically deemed not to require further rehabilitation treatment). The use of intermittent single doses for short periods is anticipated to result in a low rate of adverse effects such as dyskinesias. Nausea is a recognised side effect of L-dopa. Postural hypotension is a recognised side effect of the study drug. We will measure blood pressure in all participants at baseline assessment (those receiving active and placebo IMP) and at any time if patients experience falls or symptoms of postural hypotension. The blister packs will be packaged so that the first two doses of those randomised to receive active drug will be half dose (i.e. 62.5 Co-caredopa) to reduce the risk of early adverse effects and reflecting clinical practice (in the large multicentre trial). Treatment will be stopped if a patient has symptomatic postural hypotension. As the patients will be started on study medication in hospital we will be able to closely observe patients for presence of adverse medication related events. We anticipate adverse effects which require L-dopa to be stopped on clinical grounds occurring in approx 10% patients. For the multicentre study assuming a maximum of 2 sessions of physiotherapy or occupational therapy per day for 30 days over 6 weeks, each individual will have a maximum of 60 active or placebo tablets over study period.
Control intervention:
Placebo tablet that is identical in preparation to the study drug but without the active medication. The placebo will be given to patients as a single oral tablet 45 - 60 minutes before rehabilitation treatment. Safety and treatment stopping rules will be as per active intervention. We will outsource production of trial medication with supply in blister packs. The placebo will have the same appearance and packaging as active drug (Bilcare Ltd). Routine physical and occupational therapy will be administered to all patients in both groups. All treatments recorded using a standardised recording sheet.

Intervention Type
Drug

Phase
Not Applicable

Drug/device/biological/vaccine name(s)
Levodopa, carbidopa

Primary outcome(s)
Current primary outcome measures as of 12/02/2013:
The proportion of participants walking as defined by a score of 7 or above on the Rivermead Mobility Index (RMI), in the Co-careldopa and control intervention groups. This is a robust unambiguous clinical cut off indicator of Co-careldopa effect as it defines clearly the proportion of those walking at least 10 metres without assistance from another person, in the active and control groups at the primary end point (8 weeks) and the secondary end points (6, 12 months). The RMI has been validated and extensively used in clinical studies.

Previous primary outcome measures until 12/02/2013:
The proportion of participants walking as defined by a score of 7 or above on the Rivermead Mobility Index (RMI), in the L-dopa and control intervention groups. This is a robust unambiguous clinical cut off indicator of L-dopa effect as it defines clearly the proportion of those walking at least 10 metres without assistance from another person, in the active and control groups at the primary end point (8 weeks) and the secondary end points (6, 12 months). The RMI has been validated and extensively used in clinical studies.

Key secondary outcome(s))
Current secondary outcome measures as of 12/02/2013:
1. Barthel Index - a widely used and validated scale, scored from 0 - 20, that measures self care dependency in stroke
2. Nottingham Extended Activities of Daily Living Scale (validated and sensitive to change, used to measure instrumental activities of daily living such as outdoor mobility and household tasks)
3. General Health Questionnaire 12, a widely used questionnaire to measure depression in clinical trials
4. Caregiver Burden Index (we anticipate that improved physical recovery would reduce carers strain, this is a validated measure of carer strain and has been used in stroke clinical trials)
5. EQ-5D (a widely used measure of health status for economic evaluation)
6. A standardised proforma will be developed to capture the patient and therapists perspective of the use of Co-careldopa as part of the rehabilitation treatment (including issues relating to adherence to timing of Co-careldopa treatment as well as the type of rehabilitation treatment given
7. Modified Rankin Scale will be used so that results form this study can be related to other clinical trials (see National Stroke Trials database initiative)
8. Changes on the RMI can also capture changes in posture and movement. The RMI has 15 items that measure the ability of patients to make postural adjustments (e.g. move in bed), transfer (e. g. between bed to chair, chair to toilet) and walk (indoors and outdoors) and it scored from 0 - 15. We will analyse RMI change score which, as an indicator of the effect of Co-careldopa on overall posture and movement of patients undergoing stroke rehabilitation
9. We will collect data on lesion location identified from routinely undertaken Brain CT scans at time of admission to stroke unit. All people with acute stroke should have a CT Brain scan on admission to identify presence of intracranial hemorrhage (National Stroke Strategy, RCP Stroke guidelines). Therefore we anticipate that this data would be available for the majority of patients recruited to the study. We will develop and trial the use of a standardised proforma to collect the data on lesion location as part of the baseline assessment.

10. The ABILHAND questionnaire is a Rasch derived person-centred measure of the manual ability in everyday bimanual tasks in people with chronic stroke
11. Musculoskeletal symptoms/signs & Pain Manikin (MSK-SSP Manikin) as both stroke and musuloskeletal pain are a common cause of disability, this will be used to ascertain the long term impact of stroke interventions
12. Fatigue Assessment Scale - used to measure post stroke fatigue in stroke patients

All measured at baseline (pre-randomisation), and 6 and 12 months post-randomisation.

Previous secondary outcome measures as of 10/03/2010 and until 12/02/2013:
1. Barthel Index - a widely used and validated scale, scored from 0 - 20, that measures self care dependency in stroke
2. Northwick Park Nursing Dependency measure, a validated method of capturing physical dependency from which care costs can be estimated
3. Nottingham Extended Activities of Daily Living Scale (validated and sensitive to change, used to measure instrumental activities of daily living such as outdoor mobility and household tasks)
4. General Health Questionnaire 12, a widely used questionnaire to measure depression in clinical trials
5. Caregiver Burden Index (we anticipate that improved physical recovery would reduce carers strain, this is a validated measure of carer strain and has been used in stroke clinical trials)
6. EQ-5D (a widely used measure of health status for economic evaluation)
7. A standardised proforma will be developed to capture the patient and therapists perspective of the use of L-dopa as part of the rehabilitation treatment (including issues relating to adherence to timing of L-dopa treatment as well as the type of rehabilitation treatment given
8. Modified Rankin Scale will be used so that results form this study can be related to other clinical trials (see National Stroke Trials database initiative)
9. Changes on the RMI can also capture changes in posture and movement. The RMI has 15 items that measure the ability of patients to make postural adjustments (e.g. move in bed), transfer (e. g. between bed to chair, chair to toilet) and walk (indoors and outdoors) and it scored from 0 - 15. We will analyse RMI change score which, as an indicator of the effect of L-dopa on overall posture and movement of patients undergoing stroke rehabilitation
10. Baseline routinely collected clinical data will be used to allow Edinburgh case mix adjuster to be completed and ensure that the the baseline clinical characteristics are comparable across the active and control groups. Data on concomitant medication will be recorded. We will also collect data on lesion location identified from routinely undertaken Brain CT scans at time of admission to stroke unit. All people with acute stroke should have a CT Brain scan on admission to identify presence of intracranial hemorrhage (National Stroke Strategy, RCP Stroke guidelines). Therefore we anticipate that this data would be available for the majority of patients recruited to the study. We will develop and trial the use of a standardised proforma to collect the data on lesion location as part of the baseline assessment.
11. The ABILHAND questionnaire is a Rasch derived person-centred measure of the manual ability in everyday bimanual tasks in people with chronic stroke
12. Musculoskeletal symptoms/signs & Pain Manikin (MSK-SSP Manikin) as both stroke and musuloskeletal pain are a common cause of disability, this will be used to ascertain the long term impact of stroke interventions
13. Fatigue Assessment Scale - used to measure post stroke fatigue in stroke patients

All measured at baseline (pre-randomisation), and 6 and 12 months post-randomisation.

Initial information at time of registration:
1. Barthel Index - a widely used and validated scale, scored from 0 - 20, that measures self care dependency in stroke

2. Motor Activity Log-28 (AOU) scale, a validated scale that has been used successfully to measure functional upper limb activities in the context of clinical trials in people with stroke (e. g. the impact of constraint therapy)
3. Northwick Park Nursing Dependency measure, a validated method of capturing physical dependency from which care costs can be estimated
4. Nottingham Extended Activities of Daily Living Scale (validated and sensitive to change, used to measure instrumental activities of daily living such as outdoor mobility and household tasks)
5. General Health Questionnaire 28, a widely used questionnaire to measure depression in clinical trials
6. Caregiver Burden Index (we anticipate that improved physical recovery would reduce carers strain, this is a validated measure of carer strain and has been used in stroke clinical trials)
7. EQ-5D (a widely used measure of health status for economic evaluation)
8. A standardised proforma will be developed to capture the patient and therapists perspective of the use of L-dopa as part of the rehabilitation treatment (including issues relating to adherence to timing of L-dopa treatment as well as the type of rehabilitation treatment given
9. Modified Rankin Scale will be used so that results form this study can be related to other clinical trials (see National Stroke Trials database initiative)
10. Changes on the RMI can also capture changes in posture and movement. The RMI has 15 items that measure the ability of patients to make postural adjustments (e.g. move in bed), transfer (e.g. between bed to chair, chair to toilet) and walk (indoors and outdoors) and it scored from 0 - 15. We will analyse RMI change score which, as an indicator of the effect of L-dopa on overall posture and movement of patients undergoing stroke rehabilitation
11. Baseline routinely collected clinical data will be used to allow Edinburgh case mix adjuster to be completed and ensure that the the baseline clinical characteristics are comparable across the active and control groups. Data on concomitant medication will be recorded. We will also collect data on lesion location identified from routinely undertaken Brain CT scans at time of admission to stroke unit. All people with acute stroke should have a CT Brain scan on admission to identify presence of intracranial hemorrhage (National Stroke Strategy, RCP Stroke guidelines). Therefore we anticipate that this data would be available for the majority of patients recruited to the study. We will develop and trial the use of a standardised proforma to collect the data on lesion location as part of the baseline assessment.

All measured at baseline (pre-randomisation), and 6 and 12 months post-randomisation.

Completion date
31/03/2014

Eligibility

Key inclusion criteria
Current inclusion criteria as of 12/02/2013:
Patients meeting all of the following criteria are eligible for trial entry. It is possible that a patients condition may change during the 5 to 42 days post stroke and the patient must be reviewed during this period to assess eligibility:
1. New or recurrent clinically diagnosed ischaemic or haemorrhagic (excluding subarachnoid haemorrhage) stroke within 5 to 42 days prior to randomisation.
2. Cannot walk 10 metres or more indoors independently (i.e. without use of physical assistance)
3. Professionally scored Rivermead Mobility Index score of <7.
4. Expected to need rehabilitation treatment
5. Aged 18 years or above
6. Able to give informed consent

7. Able to access continuity of rehabilitation treatment following discharge from hospital. This can be through early supported discharge scheme or hospital/community therapy according to local practice. It is important that continuity of rehabilitation is available within 5 days following discharge.
8. Expected to be able to comply with treatment schedule (e.g. swallow whole tablets)
9. Expected to be in hospital for at least their first two doses trial medication
Inclusion criterion numbers 6, 8 and other co-morbidities should be monitored up to 42 days post stroke as patients initially not meeting the eligibility criteria might improve and therefore meet the eligibility criteria within the 42 day post stroke period.

Previous inclusion criteria as of 23/03/2010 and until 12/02/2013:
Points 1 and 2 below have been amended to read as follows:
1. New clinically diagnosed ischaemic or haemorrhagic stroke (excluding subarachnoid haemorrhage) stroke in the 2 weeks prior to randomisation
2. Cannot walk 10 metres without assistance
All other points remain the same.

Current information as of 10/03/2010:
1. New clinically diagnosed ischaemic or haemorrhagic stroke
2. Cannot walk two metres
3. Expected to need ongoing rehabilitation treatment after randomisation
4. Aged 18 years or above, either sex
5. Able to give informed consent
6. Able to access continuity of rehabilitation treatment following discharge from hospital
7. Expected to comply with treatment schedule post-randomisation

Initial information at time of registration:
1. New stroke in the previous 2 weeks
2. Aged 18 years or above, either sex
3. Able to give informed consent
4. Rivermead Mobility Index (RMI) score less than 7 (corresponds to No to the question "Can you walk 10 metres with an aid if necessary but with no standby help"). This provides a robust approach to defining participants for inclusion and would reflect the types of patients where this approach would be used if it was found to be effective.

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Sex
All

Total final enrolment

593

Key exclusion criteria

Current exclusion criteria as of 12/02/2013:
Patients meeting any of the following criteria are not eligible for trial entry:
1. Not expected to survive for 2 months following stroke
2. Diagnosis of Parkinsons disease, severe medical or surgical illness, severe psychosis
3. Known hypersensitivity or contraindications to Co-careldopa (Please refer to the trial supplied Summary of Product Characteristics (SmPC))
4. Symptomatic orthostatic hypotension
5. Needed physical assistance of at least one person to walk prior to stroke due to pre-existing co-morbidities (e.g. heart failure, osteoarthritis)
6. Pregnancy, lactation or women of child-bearing potential unwilling to use medically approved contraception whilst receiving treatment and for 1 month after treatment has finished
7. Patients currently participating in other interventional drug or treatment therapy trials*
8. Could not walk 10 metres or more indoors prior to their stroke (may have used a walking aid if necessary, but required no physical assistance). In this context physical assistance means help from one or more persons

*Enrollment of a trial participant in another trial will not necessarily exclude a patient from participating in the DARS trial. Potential trials for co-enrollment with DARS are considered by the Chief Investigator and Trial Management team with regards to:
1. It has been agreed with the Chief Investigator of the relevant studies.
2. It does not confound the results of DARS
3. It does not overburden the patient,
4. Attribution of causality to adverse events is not compromised
5. There are no potential interactions

Previous exclusion criteria as of 10/03/2010 and until 12/02/2013:
1. Not expected to survive 2 months following stroke
2. Diagnosis of Parkinsons disease, dementia, severe systemic illness, severe psychosis or glaucoma
3. Known hypersensitivity to co-careldopa
4. Patients taking monoamine oxidase inhibitors, dopaminergic or sympathomimetic agents
5. Symptomatic postural hypotension
6. Need physical assistance of at least one person to walk prior to stroke due to pre-existing co-morbidities (e.g. heart failure, osteoarthritis)
7. Pregnancy/lactation or women of child bearing potential unwilling to use medically approved contraception whilst receiving treatment

Initial information at time of registration:
1. Unlikely to survive for more than 1 month
2. Requiring palliative care as assessed by the treating physician
3. Parkinson's disease
4. Contraindications to L-dopa (such as glaucoma, cardiac arrhythmias, severe psychotic disorders, active peptic ulcer disease)
5. Symptomatic postural hypotension
6. Taking sympathomimetic agents
7. Unable to walk prior to stroke due to pre-existing co-morbidities (e.g. heart failure, osteoarthritis)

Date of first enrolment

20/10/2010

Date of final enrolment
31/03/2014

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Academic Department of Rehabilitation Medicine
Leeds
United Kingdom
LS1 3EX

Sponsor information

Organisation
University of Leeds (UK)

ROR
https://ror.org/024mrxd33

Funder(s)

Funder type
Government

Funder Name
Medical Research Council (MRC)/National Institutes of Health Research (NIHR) (UK) - Efficacy and Mechanism Evaluation (EME) Programme (ref: EME 08/43/61)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/06/2019	29/05/2019	Yes	No
Protocol article	protocol	08/08/2014		Yes	No
HRA research summary			28/06/2023	No	No
Study website	Study website	11/11/2025	11/11/2025	No	Yes