



Clinical trial results:

A multicentre randomised controlled TRial of IntraVENous immunoglobulin (IVIg) versus standard therapy for the treatment of transverse myelitis in adults and children

Summary

EudraCT number	2014-002335-34
Trial protocol	GB
Global end of trial date	11 May 2016

Results information

Result version number	v1 (current)
This version publication date	06 October 2018
First version publication date	06 October 2018
Summary attachment (see zip file)	FINAL STUDY REPORT (STRIVE CSR - signed.pdf)

Trial information

Trial identification

Sponsor protocol code	STRIVE
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Additional study identifiers

ISRCTN number	ISRCTN12127581
ClinicalTrials.gov id (NCT number)	-
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Guy's and St Thomas' NHS Foundation Trust
Sponsor organisation address	Great Maze Pond, London, United Kingdom, SE19RT
Public contact	Dr Ming Lim, Guy's and St Thomas NHS Foundation Trust, 0044 0207188 4002, Ming.Lim@gstt.nhs.uk
Scientific contact	Dr Ming Lim, Guy's and St Thomas NHS Foundation Trust, 0044 0207188 4002, Ming.Lim@gstt.nhs.uk

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	No
Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial?	No
Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	No

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	11 May 2016
Is this the analysis of the primary completion data?	Yes
Primary completion date	11 May 2016
Global end of trial reached?	Yes
Global end of trial date	11 May 2016
Was the trial ended prematurely?	Yes

Notes:

General information about the trial

Main objective of the trial:

The primary objective of this randomized controlled trial is to evaluate if additional, and early, treatment with IVIg is of extra benefit in TM when compared to the current standard therapy of intravenous steroids.

Protection of trial subjects:

Patients will be eligible for inclusion in the trial if on presentation they:

Are aged 1 year or over

Have been diagnosed with: EITHER acute first onset transverse myelitis

(The TM CONSORTIUM WORKING GROUP 2002 criteria for probable TM will be used. Hence, following clinical and radiological exclusion of a compressive myelopathy

Background therapy:

none

Evidence for comparator: -

Actual start date of recruitment	31 July 2015
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	Yes

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	United Kingdom: 2
Worldwide total number of subjects	2
EEA total number of subjects	2

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	1
Adolescents (12-17 years)	0
Adults (18-64 years)	0
From 65 to 84 years	1

85 years and over	0
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Subject disposition

Recruitment

Recruitment details:

Only 2 participants were recruited into this multi center trial located within the UK

Pre-assignment

Screening details:

Patients will be eligible for inclusion in the trial if on presentation they:

Are aged 1 year or over

Have been diagnosed with: EITHER acute first onset transverse myelitis

(The TM CONSORTIUM WORKING GROUP 2002 criteria for probable TM will be used. Hence, following clinical and radiological exclusion of a compressive myelopathy

Period 1

Period 1 title	Overall Trial (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Single blind
Roles blinded	Assessor ^[1]

Blinding implementation details:

Due to the technical challenges of masking IVIg from saline, the need for rapid recruitment and the fact that follow-up will be many months after the event using objective well-defined clinical endpoints; treatment will not be blinded (no placebo). The trial manager, pharmacy, and those administering treatment are not blinded; whilst staff carrying out primary outcome assessments at follow-up and statistical analyses will be blinded to intervention.

Arms

Are arms mutually exclusive?	Yes
Arm title	Intervention

Arm description:

Only 1 participants were recruited into this arm before early termination. Therefore no statistical analysis has been performed.

Arm type	Experimental
Investigational medicinal product name	IVIg
Investigational medicinal product code	
Other name	Intratect
Pharmaceutical forms	Solution for injection/infusion
Routes of administration	Intravenous drip use

Dosage and administration details:

Participants were randomised 1:1 to treatment with IV methylprednisolone alone (control arm) or IV methylprednisolone plus 2kg/kg IVIG in divided doses (treatment arm).

Arm title	No intervention
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Arm description:

Participants were randomised 1:1 to treatment with IV methylprednisolone alone (control arm) as standard of care.

Arm type	No intervention
No investigational medicinal product assigned in this arm	

Notes:

[1] - The roles blinded appear inconsistent with a simple blinded trial.

Justification: Due to the technical challenges of masking IVIg from saline, the need for rapid recruitment and the fact that follow-up will be many months after the event using objective well-defined clinical endpoints; treatment will not be blinded (no placebo). The trial manager, pharmacy, and those administering treatment are not blinded; whilst staff carrying out primary outcome assessments at follow-up and statistical analyses will be blinded to intervention.

Number of subjects in period 1	Intervention	No intervention
Started	1	1
Completed	0	0
Not completed	1	1
Physician decision	1	1

Baseline characteristics

Reporting groups

Reporting group title	Intervention
Reporting group description: Only 1 participant was recruited into this arm before early termination. Therefore no statistical analysis has been performed.	
Reporting group title	No intervention
Reporting group description: Participants were randomised 1:1 to treatment with IV methylprednisolone alone (control arm) as standard of care.	

Reporting group values	Intervention	No intervention	Total
Number of subjects	1	1	2
Age categorical Units: Subjects			
In utero	0	0	0
Preterm newborn infants (gestational age < 37 wks)	0	0	0
Newborns (0-27 days)	0	0	0
Infants and toddlers (28 days-23 months)	0	0	0
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	1	1
Adults (18-64 years)	1	0	1
From 65-84 years	0	0	0
85 years and over	0	0	0
Age continuous Units: years			
median	62.5	12.5	
full range (min-max)	60 to 65	10 to 15	-
Gender categorical Units: Subjects			
Female	0	1	1
Male	1	0	1

End points

End points reporting groups

Reporting group title	Intervention
Reporting group description: Only 1 participant was recruited into this arm before early termination. Therefore no statistical analysis has been performed.	
Reporting group title	No intervention
Reporting group description: Participants were randomised 1:1 to treatment with IV methylprednisolone alone (control arm) as standard of care.	

Primary: Clinical Endpoint

End point title	Clinical Endpoint ^[1]
End point description: The primary objective of the study was to evaluate if additional and early treatment with IVIG is of extra benefit in transverse myelitis compared to standard therapy of intravenous steroids. An improvement of 2 points or greater on the ASIA Impairment scale (classified A-E) at 6 months after randomisation, compared to the value measured at baseline just prior to randomisation.	
End point type	Primary
End point timeframe: baseline to 6 months post randomisation	

Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.

Justification: Trial was terminated early, with only 1 participant randomised to interventional arm and 1 participant to non interventional arm. No analysis performed.

End point values	Intervention	No intervention		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	0 ^[2]	0 ^[3]		
Units: Points on ASIA scale				
number (not applicable)				

Notes:

[2] - Trial was discontinued due to inability to recruit. Only 2 participants randomised and 0 completed.

[3] - Trial was discontinued due to inability to recruit. Only 2 participants randomised and 0 completed.

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:
randomisation to 6 months

Assessment type	Systematic
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Dictionary used

Dictionary name	MedDRA
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Dictionary version	17.1
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Reporting groups

Reporting group title	Group 1 - Intervention
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Reporting group description: -

Reporting group title	Group 2 - No Intervention
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Reporting group description: -

Serious adverse events	Group 1 - Intervention	Group 2 - No Intervention	
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 1 (0.00%)	0 / 1 (0.00%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events	0	0	

Frequency threshold for reporting non-serious adverse events: 0 %

Non-serious adverse events	Group 1 - Intervention	Group 2 - No Intervention	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	1 / 1 (100.00%)	0 / 1 (0.00%)	
Respiratory, thoracic and mediastinal disorders			
Chest Infection			
subjects affected / exposed	1 / 1 (100.00%)	0 / 1 (0.00%)	
occurrences (all)	0	0	
Skin and subcutaneous tissue disorders			
Pressure Sore			
subjects affected / exposed	1 / 1 (100.00%)	0 / 1 (0.00%)	
occurrences (all)	1	0	

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? No

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

Study was ended prematurely, after 12 months of recruitment. 2 Participants randomised into the study were withdrawn from the study following their 6-month visit post randomisation visit. As n=2 no statistical analysis will be carried out on the data
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Notes:

Online references

<http://www.ncbi.nlm.nih.gov/pubmed/28639937>