



## Clinical trial results:

### A Long-Term, Open-Label, Multicenter, Phase IV Study to Assess Longitudinal Changes on Height and Weight in Patients with MPS II Who Are Receiving Elaprase and Started Treatment with Elaprase at < 6 Years of Age

#### Summary

EudraCT number	2014-004804-31
Trial protocol	DE
Global end of trial date	29 July 2025

#### Results information

Result version number	v1 (current)
This version publication date	13 February 2026
First version publication date	13 February 2026

#### Trial information

##### Trial identification

Sponsor protocol code	SHP-ELA-401
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##### Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT02455622
WHO universal trial number (UTN)	-

Notes:

#### Sponsors

Sponsor organisation name	Shire
Sponsor organisation address	300 Shire Way, Lexington, MA, United States, 02421
Public contact	Study Director, Takeda, TrialDisclosures@takeda.com
Scientific contact	Study Director, Takeda, TrialDisclosures@takeda.com

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?	Yes

Notes:

## Results analysis stage

Analysis stage	Final
Date of interim/final analysis	29 July 2025
Is this the analysis of the primary completion data?	No
Global end of trial reached?	Yes
Global end of trial date	29 July 2025
Was the trial ended prematurely?	No

Notes:

## General information about the trial

Main objective of the trial:

The main objectives of this study was to assess longitudinal changes in the following parameters in patients with MPS II who began Elaprase treatment at <6 years of age and who are receiving treatment with Elaprase:

- height
- weight

Protection of trial subjects:

Each participant or their legally authorized representative signed an informed consent form (ICF) before participating in the study

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	28 October 2015
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

## Population of trial subjects

### Subjects enrolled per country

Country: Number of subjects enrolled	Brazil: 1
Country: Number of subjects enrolled	Canada: 6
Country: Number of subjects enrolled	Czechia: 3
Country: Number of subjects enrolled	Dominican Republic: 1
Country: Number of subjects enrolled	France: 2
Country: Number of subjects enrolled	Germany: 3
Country: Number of subjects enrolled	Thailand: 2
Country: Number of subjects enrolled	Malaysia: 2
Country: Number of subjects enrolled	Netherlands: 5
Country: Number of subjects enrolled	Serbia: 1
Country: Number of subjects enrolled	Philippines: 2
Country: Number of subjects enrolled	Poland: 1
Country: Number of subjects enrolled	Spain: 2
Country: Number of subjects enrolled	Viet Nam: 10
Country: Number of subjects enrolled	United Kingdom: 19
Country: Number of subjects enrolled	United States: 6
Worldwide total number of subjects	66
EEA total number of subjects	16

Notes:

<b>Subjects enrolled per age group</b>	
In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	19
Children (2-11 years)	47
Adolescents (12-17 years)	0
Adults (18-64 years)	0
From 65 to 84 years	0
85 years and over	0

## Subject disposition

### Recruitment

Recruitment details:

Participants took part in the study at various investigative sites globally from 28 October 2015 to 29 July 2025.

### Pre-assignment

Screening details:

Treatment-naïve participants with mucopolysaccharidosis II(MPS II) were enrolled to receive weekly intravenous(IV) infusions of Elaprase starting at less than(<)6 years of age.Due to scarcity of treatment-naïve participants,primary growth analyses data was utilized from participants enrolled in Hunter Outcome Survey(HOS) registry for this study.

### Period 1

Period 1 title	Overall Study (overall period)
Is this the baseline period?	Yes
Allocation method	Not applicable
Blinding used	Not blinded

### Arms

Are arms mutually exclusive?	Yes
<b>Arm title</b>	Prospective Set

Arm description:

Participants received once-weekly IV infusions of Elaprase at a dose of 0.5 mg/kg and were followed for a minimum of 5 years after initiation of Elaprase treatment, or until they reached their 10th birthday, whichever was longer.

Arm type	Experimental
Investigational medicinal product name	Elaprase
Investigational medicinal product code	
Other name	Idursulfase
Pharmaceutical forms	Concentrate and solvent for solution for infusion
Routes of administration	Intravenous use

Dosage and administration details:

Weekly Elaprase infusion from Week 1 till minimum of 5 years or until they reach their 10th birthday, whichever is longer.

<b>Arm title</b>	Hunter Outcome Survey (HOS) Treated Set
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Arm description:

Treated participants from the Hunter Outcome Survey (HOS) patient registry, who met the criteria.

Arm type	No intervention
No investigational medicinal product assigned in this arm	
<b>Arm title</b>	HOS Untreated Set

Arm description:

Participants in the HOS patient registry, who were not treated, were used as the comparator in the Primary Growth Analysis for this study using their height and weight data.

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

Number of subjects in period 1	Prospective Set	Hunter Outcome Survey (HOS) Treated Set	HOS Untreated Set
Started	21	19	26
Completed	17	19	26
Not completed	4	0	0
Adverse event, serious fatal	1	-	-
Reason Not Specified	1	-	-
Non-compliance with study drug	2	-	-

## Baseline characteristics

### Reporting groups

Reporting group title	Prospective Set
Reporting group description:	
Participants received once-weekly IV infusions of Elaprase at a dose of 0.5 mg/kg and were followed for a minimum of 5 years after initiation of Elaprase treatment, or until they reached their 10th birthday, whichever was longer.	
Reporting group title	Hunter Outcome Survey (HOS) Treated Set
Reporting group description:	
Treated participants from the Hunter Outcome Survey (HOS) patient registry, who met the criteria.	
Reporting group title	HOS Untreated Set
Reporting group description:	
Participants in the HOS patient registry, who were not treated, were used as the comparator in the Primary Growth Analysis for this study using their height and weight data.	

Reporting group values	Prospective Set	Hunter Outcome Survey (HOS) Treated Set	HOS Untreated Set
Number of subjects	21	19	26
Age Categorical			
Units: Subjects			
Less than (<)2 years	2	2	15
Greater than equal to (>=) 2 years	19	17	11
Gender categorical			
Units: Subjects			
Female	0	0	0
Male	21	19	26
Race (NIH/OMB)			
Units: Subjects			
American Indian or Alaska Native	0	0	0
Asian	15	1	1
Native Hawaiian or Other Pacific Islander	0	0	0
Black or African American	0	1	2
White	4	14	23
More than one race	0	0	0
Unknown or Not Reported	2	3	0
Ethnicity (NIH/OMB)			
Units: Subjects			
Hispanic or Latino	2	0	0
Not Hispanic or Latino	9	0	0
Unknown or Not Reported	10	19	26

Reporting group values	Total		
Number of subjects	66		
Age Categorical			
Units: Subjects			
Less than (<)2 years	19		
Greater than equal to (>=) 2 years	47		

Gender categorical			
Units: Subjects			
Female	0		
Male	66		
Race (NIH/OMB)			
Units: Subjects			
American Indian or Alaska Native	0		
Asian	17		
Native Hawaiian or Other Pacific Islander	0		
Black or African American	3		
White	41		
More than one race	0		
Unknown or Not Reported	5		
Ethnicity (NIH/OMB)			
Units: Subjects			
Hispanic or Latino	2		
Not Hispanic or Latino	9		
Unknown or Not Reported	55		

## End points

### End points reporting groups

Reporting group title	Prospective Set
Reporting group description: Participants received once-weekly IV infusions of Elaprase at a dose of 0.5 mg/kg and were followed for a minimum of 5 years after initiation of Elaprase treatment, or until they reached their 10th birthday, whichever was longer.	
Reporting group title	Hunter Outcome Survey (HOS) Treated Set
Reporting group description: Treated participants from the Hunter Outcome Survey (HOS) patient registry, who met the criteria.	
Reporting group title	HOS Untreated Set
Reporting group description: Participants in the HOS patient registry, who were not treated, were used as the comparator in the Primary Growth Analysis for this study using their height and weight data.	
Subject analysis set title	Combined Set
Subject analysis set type	Full analysis
Subject analysis set description: The Combined Set included data from all participants in both the Efficacy Set and the HOS Treated Set. Efficacy Set includes participants who received once-weekly IV infusions of Elaprase at a dose of 0.5 mg/kg and were followed for a minimum of 5 years after initiation of Elaprase treatment, or until they reached their 10th birthday, whichever was longer.	

### Primary: Height Overall

End point title	Height Overall <sup>[1]</sup>
End point description: The effect of treatment on growth evaluated in terms of height. The Combined Set included data from all participants in both the Efficacy Set and the HOS Treated Set. The Efficacy Set consisted of all prospective participants, who had a baseline and at least 1 post-baseline efficacy assessment. The HOS Treated Set included all participants enrolled in the HOS registry that meet the criteria. The HOS Untreated Set included untreated participants from the HOS registry that meet the criteria.	
End point type	Primary
End point timeframe: From Baseline through End-of-Study (approximately 9.75 years)	
Notes: [1] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period. Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.	

End point values	HOS Untreated Set	Combined Set		
Subject group type	Reporting group	Subject analysis set		
Number of subjects analysed	26	40		
Units: centimeter (cm)				
least squares mean (standard error)	108.143 (± 1.7668)	113.759 (± 1.211)		

### Statistical analyses

Statistical analysis title	Statistical Analysis 1
Comparison groups	HOS Untreated Set v Combined Set



Number of subjects included in analysis	66
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.011
Method	Linear mixed model
Parameter estimate	LS Mean Difference
Point estimate	5.616
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.329
upper limit	9.903
Variability estimate	Standard error of the mean
Dispersion value	2.1497

### Primary: Weight Overall

End point title	Weight Overall <sup>[2]</sup>
End point description:	
The effect of treatment on growth was evaluated, in terms of weight. The Combined Set included data from all participants in both the Efficacy Set and the HOS Treated Set. The Efficacy Set consisted of all prospective participants, who had a baseline and at least 1 post-baseline efficacy assessment. The HOS Treated Patients included all participants enrolled in the HOS registry that meet the criteria. The HOS Untreated Set included untreated participants from the HOS registry that meet the criteria.	
End point type	Primary
End point timeframe:	
From Baseline through End-of-Study (approximately 9.75 years)	

#### Notes:

[2] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.  
Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.

End point values	HOS Untreated Set	Combined Set		
Subject group type	Reporting group	Subject analysis set		
Number of subjects analysed	26	40		
Units: kilograms (kg)				
least squares mean (standard error)	26.11 (± 1.1647)	25.164 (± 0.8382)		

### Statistical analyses

Statistical analysis title	Statistical Analysis 2
Comparison groups	HOS Untreated Set v Combined Set

Number of subjects included in analysis	66
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.5106
Method	Linear mixed model
Parameter estimate	LS Mean Difference
Point estimate	-0.946
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.8
upper limit	1.908
Variability estimate	Standard error of the mean
Dispersion value	1.4308

### Primary: Change from Baseline in Height Measured by Z- score

End point title	Change from Baseline in Height Measured by Z- score <sup>[3][4]</sup>
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End point description:

Height Z-scores were calculated based on the World Health Organization Drug Dictionary (WHO-DD) growth charts (for age less than or equal to ( $\leq$ ) 24 months) and the Centers for Disease Control and Prevention (CDC) growth charts (for age more than ( $>$ ) 24 months) normal height/weight-for-age data. The Combined Set included data from all participants in both the Efficacy Set and the HOS Treated Set. The HOS Untreated Set included untreated participants from the HOS registry that meet the criteria. Subjects analyzed is the number of participants with data available for analysis for this outcome measure.

End point type	Primary
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End point timeframe:

From Baseline through End-of-Study (approximately 9.75 years)

Notes:

[3] - 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: Only descriptive analyses were planned for this end point.

[4] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.

End point values	HOS Untreated Set	Combined Set		
Subject group type	Reporting group	Subject analysis set		
Number of subjects analysed	22	39		
Units: height z score				
arithmetic mean (standard deviation)	-4.228 ( $\pm$ 1.4616)	-1.135 ( $\pm$ 1.3480)		

### Statistical analyses

No statistical analyses for this end point

### Primary: Change from Baseline in Weight Measured by Z-score

End point title	Change from Baseline in Weight Measured by Z-score <sup>[5]</sup> <sup>[6]</sup>
End point description:	
Weight Z-scores were calculated based on the WHO-DD growth charts (for age ≤ 24 months) and the CDC growth charts (for age >24 months) normal height/weight-for-age data. The Combined Set included data from all participants in both the Efficacy Set and the HOS Treated Set. The HOS Untreated Set included untreated participants from the HOS registry that meet the criteria. Subjects analyzed is the number of participants with data available for analysis for this outcome measure.	
End point type	Primary
End point timeframe:	
From Baseline through End-of-Study (approximately 9.75 years)	

Notes:

[5] - 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: Only descriptive analyses were planned for this end point.

[6] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.

End point values	HOS Untreated Set	Combined Set		
Subject group type	Reporting group	Subject analysis set		
Number of subjects analysed	26	39		
Units: weight z score				
arithmetic mean (standard deviation)	-2.337 (± 1.9014)	-1.161 (± 1.3259)		

## Statistical analyses

No statistical analyses for this end point

## Primary: Number of Participants With Clinical Significant Abnormal Neurological Examination

End point title	Number of Participants With Clinical Significant Abnormal Neurological Examination <sup>[7]</sup> <sup>[8]</sup>
End point description:	
A full physical examination will be performed with a thorough review of body systems. Physical examinations will include a review of the patient's general appearance, neurological examination, as well as evaluation of the body systems. Any abnormal change in findings will be recorded as an adverse event (AE). The Safety Analysis Set consisted of all prospective participants who received any amount of investigational product (IP).	
End point type	Primary
End point timeframe:	
From Screening to End-of-Study (approximately 9.75 years)	

Notes:

[7] - 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: Only descriptive analyses were planned for this end point.

[8] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.

End point values	Prospective Set			
Subject group type	Reporting group			
Number of subjects analysed	21			
Units: participants	0			

## Statistical analyses

No statistical analyses for this end point

## Primary: Number of Participants With Clinically Significant Abnormal Urinalysis Values

End point title	Number of Participants With Clinically Significant Abnormal Urinalysis Values <sup>[9]</sup> <sup>[10]</sup>
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End point description:

Reported here is the number of participants with clinically significant abnormal values in urinalysis tests. Only tests with at least 1 participant with clinically significant abnormal values are reported. Participant was clinically significant abnormal if there was at least one abnormal and clinically significant post-baseline value. The Safety Analysis Set consisted of all prospective participants who received any amount of IP.

End point type	Primary
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End point timeframe:

From screening to End-of-Study (approximately 9.75 years)

Notes:

[9] - 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: Only descriptive analyses were planned for this end point.

[10] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.

End point values	Prospective Set			
Subject group type	Reporting group			
Number of subjects analysed	21			
Units: participants				
Bacteria (/High-power field (HPF))	5			
Erythrocytes (/HPF)	1			
Glucose (milligrams per deciliter (mg/dl))	1			
Leukocyte Esterase	1			
Mucous Threads	1			
Nitrite	4			
Occult Blood	1			
Protein (mg/dL)	3			
Specimen Appearance	6			
Squamous Epithelial Cells (/HPF)	2			
Squamous Transitional Epithelial Cells (/HPF)	1			
Triple Phosphate Crystals (/HPF)	2			
Yeast Cells	1			
pH (pH)	3			

## Statistical analyses

No statistical analyses for this end point

### Primary: Number of Participants With Treatment-emergent Adverse Events (TEAE)

End point title	Number of Participants With Treatment-emergent Adverse Events (TEAE) <sup>[11][12]</sup>
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End point description:

An AE is any noxious, pathologic, or unintended change in anatomical, physiologic, or metabolic function as indicated by physical signs, symptoms, or laboratory changes occurring in any phase of a clinical study, whether or not considered product-related. This includes an exacerbation of a pre-existing condition. A TEAE is defined as an AE with an onset that occurs after receiving study drug. The Safety Analysis Set consisted of all prospective participants who received any amount of IP.

End point type	Primary
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End point timeframe:

From screening to End-of-Study (approximately 9.75 years)

Notes:

[11] - 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: Only descriptive analyses were planned for this end point.

[12] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.

<b>End point values</b>	Prospective Set			
Subject group type	Reporting group			
Number of subjects analysed	21			
Units: participants	21			

## Statistical analyses

No statistical analyses for this end point

### Primary: Number Participants With Clinically Significant Abnormal Serum Chemistry Values

End point title	Number Participants With Clinically Significant Abnormal Serum Chemistry Values <sup>[13][14]</sup>
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End point description:

Reported here is the number of participants with clinically significant abnormal values in serum chemistry tests. Only tests with at least 1 participant with clinically significant abnormal values are reported. Participant was clinically significant abnormal if there was at least one abnormal and clinically significant post-baseline value. The Safety Analysis Set consisted of all prospective participants who received any amount of IP.

End point type	Primary
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End point timeframe:

From screening to End-of-Study (approximately 9.75 years)

Notes:

[13] - 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: Only descriptive analyses were planned for this end point.

[14] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.

End point values	Prospective Set			
Subject group type	Reporting group			
Number of subjects analysed	21			
Units: participants				
Alanine Aminotransferase (units per liter (U/L))	1			
Aspartate Aminotransferase (U/L)	1			
Gamma Glutamyl Transferase (U/L)	1			

## Statistical analyses

No statistical analyses for this end point

## Primary: Number of Participants With Clinically Significant Abnormal Hematology Values

End point title	Number of Participants With Clinically Significant Abnormal Hematology Values <sup>[15][16]</sup>
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End point description:

Reported here is the number of participants with clinically significant abnormal values in haematological tests. Only tests with at least 1 participant with clinically significant abnormal values are reported.

Participant was clinically significant abnormal if there was at least one abnormal and clinically significant post-baseline value. The Safety Analysis Set consisted of all prospective participants who received any amount of IP.

End point type	Primary
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End point timeframe:

Screening to End-of-Study (approximately 9.75 years)

Notes:

[15] - 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: Only descriptive analyses were planned for this end point.

[16] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.

End point values	Prospective Set			
Subject group type	Reporting group			
Number of subjects analysed	21			
Units: participants				
Ery. Mean Corpuscular Hemoglobin (picogram (pg))	1			
Ery. Mean Corpuscular Volume (femtoliter (fL))	1			
Hemoglobin (gram per litre (g/L))	1			

## Statistical analyses

No statistical analyses for this end point

## Secondary: Observed Value of Height Velocity From Baseline to End of Study

End point title	Observed Value of Height Velocity From Baseline to End of Study <sup>[17]</sup>
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End point description:

Height velocity was calculated as the difference in height, divided by the difference in age between consecutive study visits. BL denotes Baseline, HV denotes Height Velocity and Y denotes Years for the reported categories. Efficacy Set: all prospective participants, who had a baseline and at least 1 post-baseline efficacy assessment. Combined Set included data from all participants in both Efficacy Set and HOS Treated Set. HOS Treated Set included all participants enrolled in HOS registry that meet the criteria. HOS Untreated Set included untreated participants from HOS registry that meet the criteria. Number analysed (n) is the number of participants with data available for the specified categories.

End point type	Secondary
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End point timeframe:

From Baseline till End-of- Study Treatment (Approximately 9.75 years)

Notes:

[17] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.

End point values	Prospective Set	HOS Untreated Set	Combined Set	
Subject group type	Reporting group	Reporting group	Subject analysis set	
Number of subjects analysed	21	26	40	
Units: centimeters (cm)/year				
arithmetic mean (standard deviation)				
Overall HV:BL to <6Y of Age (n=16,22,32)	5.401 (± 2.5815)	6.557 (± 2.5902)	6.556 (± 2.6803)	
Overall HV:6Y of Age to EOS (n=20,18,38)	2.699 (± 1.7610)	1.761 (± 1.2178)	3.571 (± 1.8064)	

## Statistical analyses

No statistical analyses for this end point

## Secondary: Observed Value of Weight Velocity From Baseline to End of Study

End point title	Observed Value of Weight Velocity From Baseline to End of Study <sup>[18]</sup>
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End point description:

Weight velocity was be calculated as the difference in weight, divided by the difference in age between consecutive study visits. Efficacy Set: all prospective participants, who had a baseline and at least 1 post-baseline efficacy assessment. Combined Set included data from all participants in both Efficacy Set and HOS Treated Set. HOS Treated Set included all participants enrolled in HOS registry that meet the criteria. HOS Untreated Set included untreated participants from HOS registry that meet criteria. BL denotes baseline, Y denotes Years and V denotes Velocity for the reported categories. Number analyzed (n) is the number of participants with data available for the specified categories.

End point type	Secondary
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End point timeframe:

From Baseline till End-of- Study Treatment (Approximately 9.75 years)

Notes:

[18] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.

End point values	Prospective Set	HOS Untreated Set	Combined Set	
Subject group type	Reporting group	Reporting group	Subject analysis set	
Number of subjects analysed	21	26	40	
Units: kilograms (kg)/year				
arithmetic mean (standard deviation)				
Overall V:BL to <6Y of Age (n=16,22,32)	1.772 (± 1.2029)	3.670 (± 2.0005)	2.475 (± 1.4550)	
Overall V: 6Y of Age to EOS (n=20,19,38)	1.573 (± 1.3198)	1.445 (± 0.8324)	2.305 (± 1.7134)	

## Statistical analyses

No statistical analyses for this end point

## Secondary: Percent Change From Baseline for Urinary glycosaminoglycans (uGAG) Levels Normalized to Urine Creatinine

End point title	Percent Change From Baseline for Urinary glycosaminoglycans (uGAG) Levels Normalized to Urine Creatinine <sup>[19]</sup>
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End point description:

Urinary GAG levels were normalized to urine creatinine (normalized uGAG) and reported as mg uGAG/ millimoles (mmol) creatinine. The Efficacy Set is defined as all prospective participants who had a baseline and at least 1 post-baseline efficacy assessment.

End point type	Secondary
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End point timeframe:

Baseline to End-of-Study (Approximately 9.75 years)

Notes:

[19] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.



End point values	Prospective Set			
Subject group type	Reporting group			
Number of subjects analysed	21			
Units: mg uGAG/mmol creatinine				
arithmetic mean (standard deviation)				
Normalized uGAG (mg/mmol)	-70.446 ( $\pm$ 17.8741)			

## Statistical analyses

No statistical analyses for this end point

## Secondary: Normalized uGAG Divided by Upper Llimit of Normal for Age (uGAG/ULN) Every 12 Months

End point title	Normalized uGAG Divided by Upper Llimit of Normal for Age (uGAG/ULN) Every 12 Months <sup>[20]</sup>
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End point description:

Normalized uGAG was divided by the upper limit of normal for age (uGAG/ULN), where the ULN for uGAG was obtained from Mayo Clinic. The Efficacy Set is defined as all prospective participants who had a baseline and at least 1 post-baseline efficacy assessment. Number analyzed (n) is the number of participants with data available for analysis for this outcome measure at the end-of-study. 9999 denotes Standard Deviation (SD) was not estimable for a single participant.

End point type	Secondary
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End point timeframe:

Baseline to End-of-Study (Approximately 9.75 years)

Notes:

[20] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.

End point values	Prospective Set			
Subject group type	Reporting group			
Number of subjects analysed	21			
Units: Normalized uGAG/ULN				
arithmetic mean (standard deviation)				
Normalized uGAG/ULN: Baseline(n=20)	5.052 ( $\pm$ 1.0376)			
Normalized uGAG/ULN: 12 Months(n=20)	2.315 ( $\pm$ 0.7655)			
Normalized uGAG/ULN: 24 Months(n=19)	2.096 ( $\pm$ 0.7657)			
Normalized uGAG/ULN: 36 Months(n=17)	2.182 ( $\pm$ 0.9339)			
Normalized uGAG/ULN: 48 Months(n=17)	2.063 ( $\pm$ 0.6853)			
Normalized uGAG/ULN: 60 Months(n=7)	2.197 ( $\pm$ 0.8870)			
Normalized uGAG/ULN: 72 Months(n=3)	2.190 ( $\pm$ 1.0945)			
Normalized uGAG/ULN: 84 Months(n=1)	0.830 ( $\pm$ 9999)			
Normalized uGAG/ULN: End of Study(n=21)	2.055 ( $\pm$ 1.1866)			

## Statistical analyses

No statistical analyses for this end point

### Secondary: Spleen Volume

End point title	Spleen Volume <sup>[21]</sup>
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End point description:

Spleen volume was assessed using abdominal ultrasonography. Efficacy Set consisted of all prospective participants, who had a baseline and at least 1 post-baseline efficacy assessment. Subjects analyzed is the number of participants with data available for analysis. Number analyzed (n) is the number of participants with data available for analysis at the specified time points.

End point type	Secondary
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End point timeframe:

Baseline up to 24 Months

Notes:

[21] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.

End point values	Prospective Set			
Subject group type	Reporting group			
Number of subjects analysed	20			
Units: mL				
arithmetic mean (standard deviation)				
Spleen Volume: Baseline (n=8)	104.593 (± 29.9658)			
Spleen Volume: 24 Months (n=14)	98.427 (± 47.8022)			

## Statistical analyses

No statistical analyses for this end point

### Secondary: Liver Volume

End point title	Liver Volume <sup>[22]</sup>
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End point description:

Liver volume was assessed using abdominal ultrasonography. Efficacy Set consisted of all prospective participants, who had a baseline and at least 1 post-baseline efficacy assessment. Subjects analyzed is the number of participants with data available for analysis. Number analyzed (n) is the number of participants with data available for analysis at the specified time points.

End point type	Secondary
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End point timeframe:

Baseline up to 24 Months

Notes:

[22] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.

End point values	Prospective Set			
Subject group type	Reporting group			
Number of subjects analysed	20			
Units: milliliters (mL)				
arithmetic mean (standard deviation)				
Liver Volume: Baseline (n=8)	105.855 ( $\pm$ 16.8925)			
Liver Volume: 24 Months (n=14)	87.811 ( $\pm$ 7.0147)			

## Statistical analyses

No statistical analyses for this end point

## Secondary: Joint Mobility, as Measured by Joint Range of Motion (JROM) Scores, Including Upper-Limb and Lower-Limb Joint Scores

End point title	Joint Mobility, as Measured by Joint Range of Motion (JROM) Scores, Including Upper-Limb and Lower-Limb Joint Scores <sup>[23]</sup>
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End point description:

JROM scoring followed Epps et al.'s method: joint motion (in degrees) was averaged across both sides, divided by the normal value, and multiplied by 100 to yield a percent score. These scores were then averaged to produce an overall joint score. Efficacy Set consisted of all prospective participants, who had a baseline and at least 1 post-baseline efficacy assessment. Subjects analyzed is the number of participants with data available for analysis for this outcome measure at the end-of-study.

End point type	Secondary
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End point timeframe:

From Baseline to End-of-Study (approximately 9.75 years)

Notes:

[23] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.

End point values	Prospective Set			
Subject group type	Reporting group			
Number of subjects analysed	20			
Units: score on a scale				
arithmetic mean (standard deviation)				
Lower Limb	94.50 ( $\pm$ 31.634)			
Upper Limb	104.24 ( $\pm$ 21.471)			

## Statistical analyses

No statistical analyses for this end point

### Secondary: Distance Walked, as Measured by Six Minute Walk Test (6MWT)

End point title	Distance Walked, as Measured by Six Minute Walk Test
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End point description:

The 6MWT was conducted according to the American Thoracic Society guidelines for the 6MWT in participants who were able to walk. The distance achieved in meters was recorded. Efficacy Set consisted of all prospective participants, who had a baseline and at least 1 post-baseline efficacy assessment.

End point type	Secondary
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End point timeframe:

From Baseline to End-of-Study (approximately 9.75 years)

Notes:

[24] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.

End point values	Prospective Set			
Subject group type	Reporting group			
Number of subjects analysed	21			
Units: meters				
arithmetic mean (standard deviation)				
End of Study	224.2 (± 178.42)			

## Statistical analyses

No statistical analyses for this end point

### Secondary: Quality of Life, as Measured by Hunter-Syndrome Functional Outcome in Clinical Understanding Scale (HS-FOCUS)

End point title	Quality of Life, as Measured by Hunter-Syndrome Functional Outcome in Clinical Understanding Scale (HS-FOCUS) <sup>[25]</sup>
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End point description:

The participant's QoL was assessed using the HS-FOCUS (shortened version) questionnaire. The HS-FOCUS (shortened version) questionnaire has 5 function domains (walking/standing, grip/reach, schooling/work, activities, and breathing). The scale of the 5 function domains ranges from 0 to 3, with a 3-score denoting highest disability: 0: with no difficulty; 1: with some difficulty; 2: with much difficulty; 3: unable to do; Missing: Does not apply. The response option "Does not apply" is treated as "missing" with no score, the same as if the item had not been completed in the questionnaire. Higher scores indicate worse functional outcomes/greater disability. Efficacy Set consisted of all prospective participants, who had a baseline and at least 1 post-baseline efficacy assessment. Number analyzed (n) is the number of participants with data available for analysis for the specified categories.

End point type	Secondary
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End point timeframe:

Baseline to End-of-Study (Approximately 9.75 years)

Notes:

[25] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.

End point values	Prospective Set			
Subject group type	Reporting group			
Number of subjects analysed	21			
Units: score on a scale				
arithmetic mean (standard deviation)				
End of Study: Walking/Standing (n=21)	1.19 ( $\pm$ 1.042)			
End of Study: Grip/Reach (n=21)	1.83 ( $\pm$ 0.986)			
End of Study: School/Work (n=17)	1.97 ( $\pm$ 1.166)			
End of Study: Activities (n=20)	1.68 ( $\pm$ 1.238)			
End of Study: Breathing (n=21)	1.00 ( $\pm$ 0.929)			

## Statistical analyses

No statistical analyses for this end point

## Secondary: Impact of Illness on Ability to Function in Daily Life, as Measured by Childhood Health Assessment Questionnaire (CHAQ Parent Report)

End point title	Impact of Illness on Ability to Function in Daily Life, as Measured by Childhood Health Assessment Questionnaire (CHAQ Parent Report) <sup>[26]</sup>
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End point description:

Impact on ability to function in daily life was measured by the CHAQ (Parent Report).The CHAQ includes 30 items measured on a scale of 0 to 3: 0=without any difficulty;1=with some difficulty;2=with much difficulty;3=Unable to do;Missing: Does not apply.The highest scoring item in each category determines the score for that category with higher scores indicating worse functioning/higher disability.The mean score for the 8 subscales is the Disability Index(dressing, hygiene, arising, eating, walking, reach, grip and activities).The Discomfort Index and Health Status Index are measured on separate 15 cm scales.The distance from the left end of the scale to the respondent's mark is measured and multiplied by 0.2 to calculate the score.Discomfort and Health Status Index scores were rescaled to 0-100 scales.Higher scores indicate greater discomfort/worse health status.Efficacy Set consisted of all prospective participants, who had a baseline and at least 1 post-baseline efficacy assessment.

End point type	Secondary
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End point timeframe:

Baseline to End-of-Study (approximately 9.75 years)

Notes:

[26] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.

End point values	Prospective Set			
Subject group type	Reporting group			
Number of subjects analysed	21			
Units: score on a scale				
arithmetic mean (standard deviation)				
Disability Index	2.143 ( $\pm$ 0.7334)			
Discomfort Index	16.4 ( $\pm$ 25.57)			

Health Status Index	51.9 ( $\pm$ 33.12)			
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## Statistical analyses

No statistical analyses for this end point

## Secondary: Adaptive Behavior, as Measured by the Vineland Adaptive Behavior Scales (VABS II)

End point title	Adaptive Behavior, as Measured by the Vineland Adaptive Behavior Scales (VABS II) <sup>[27]</sup>
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End point description:

Adaptive behavior was measured by the parent reported VABS-II. The scores were calculated for each of the 4 domains (communication; daily living skills; socialization; motor skills), as well as the adaptive behavior composite score. Higher scores indicate better adaptive functioning. Efficacy Set consisted of all prospective participants, who had a baseline and at least 1 post-baseline efficacy assessment. Subjects analyzed is the number of participants with data available for analysis for this outcome measure at the end-of-study.

End point type	Secondary
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End point timeframe:

Baseline to End-of-Study (approximately 9.75 years)

Notes:

[27] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.

End point values	Prospective Set			
Subject group type	Reporting group			
Number of subjects analysed	16			
Units: score on a scale				
arithmetic mean (standard deviation)				
EOS:Adaptive Behavior Composite Standard Score	48.1 ( $\pm$ 19.07)			
EOS:Communication Domain Standard Score	44.4 ( $\pm$ 15.19)			
EOS:Daily Living Domain Standard Score	51.6 ( $\pm$ 22.53)			
EOS:Motor Skills Domain Standard Score	28.5 ( $\pm$ 13.22)			
EOS: Social Domain Standard Score	53.6 ( $\pm$ 19.88)			

## Statistical analyses

No statistical analyses for this end point

## Secondary: Anti-Idursulfase Antibodies (ADA) in Serum

End point title	Anti-Idursulfase Antibodies (ADA) in Serum <sup>[28]</sup>
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**End point description:**

Blood samples were collected and analyzed for determination of anti-idursulfase antibodies every 6 months in SHP-ELA-401. Analysis of anti-idursulfase antibodies including neutralizing antibodies (NAb) was conducted using validated 3-tier immunoassay methods (screening, confirmatory, and titer). Efficacy Set consisted of all prospective participants, who had a baseline and at least 1 post-baseline efficacy assessment. Subjects analyzed is the number of participants with data available for analysis for this outcome measure at the end-of-study.

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End point type	Secondary
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**End point timeframe:**

From Baseline to End-of-Study (Approximately 9.75 years)

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**Notes:**

[28] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Descriptive analysis for this end point was planned only for the arm groups where it is reported.

End point values	Prospective Set			
Subject group type	Reporting group			
Number of subjects analysed	21			
Units: participants				
ADA Positive (ADA+)	21			
NAb Positive (NAb+)	15			

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**Statistical analyses**

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No statistical analyses for this end point

## Adverse events

### Adverse events information

Timeframe for reporting adverse events:

From baseline until the end of study (up to approximately 9.75 years)

Adverse event reporting additional description:

The Safety Analysis Set consisted of all prospective participants who received any amount of IP.

Assessment type	Systematic
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### Dictionary used

Dictionary name	MedDRA
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Dictionary version	28.0
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### Reporting groups

Reporting group title	Prospective Set
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Reporting group description:

Participants received once-weekly IV infusions of Elaprase at a dose of 0.5 mg/kg and were followed for a minimum of 5 years after initiation of Elaprase treatment, or until they reached their 10th birthday, whichever was longer.

Serious adverse events	Prospective Set		
Total subjects affected by serious adverse events			
subjects affected / exposed	11 / 21 (52.38%)		
number of deaths (all causes)	1		
number of deaths resulting from adverse events	1		
Cardiac disorders			
Bradycardia			
subjects affected / exposed	1 / 21 (4.76%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Nervous system disorders			
Seizure			
subjects affected / exposed	1 / 21 (4.76%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Hydrocephalus			
subjects affected / exposed	1 / 21 (4.76%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
General disorders and administration site conditions			



Sudden death			
subjects affected / exposed	1 / 21 (4.76%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 1		
Chills			
subjects affected / exposed	1 / 21 (4.76%)		
occurrences causally related to treatment / all	1 / 1		
deaths causally related to treatment / all	0 / 0		
Eye disorders			
Papilloedema			
subjects affected / exposed	1 / 21 (4.76%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Gastrointestinal disorders			
Inguinal hernia			
subjects affected / exposed	1 / 21 (4.76%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Respiratory, thoracic and mediastinal disorders			
Obstructive airways disorder			
subjects affected / exposed	1 / 21 (4.76%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Dyspnoea			
subjects affected / exposed	1 / 21 (4.76%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Skin and subcutaneous tissue disorders			
Eczema			
subjects affected / exposed	1 / 21 (4.76%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Musculoskeletal and connective tissue disorders			
Systemic lupus erythematosus			

subjects affected / exposed	1 / 21 (4.76%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			
Sepsis			
subjects affected / exposed	1 / 21 (4.76%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Pneumonia			
subjects affected / exposed	6 / 21 (28.57%)		
occurrences causally related to treatment / all	0 / 8		
deaths causally related to treatment / all	0 / 0		
Influenza			
subjects affected / exposed	1 / 21 (4.76%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Dengue fever			
subjects affected / exposed	1 / 21 (4.76%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
COVID-19			
subjects affected / exposed	2 / 21 (9.52%)		
occurrences causally related to treatment / all	0 / 2		
deaths causally related to treatment / all	0 / 0		
Bronchitis			
subjects affected / exposed	3 / 21 (14.29%)		
occurrences causally related to treatment / all	0 / 6		
deaths causally related to treatment / all	0 / 0		
Skin infection			
subjects affected / exposed	1 / 21 (4.76%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Metabolism and nutrition disorders			

Hypernatraemia			
subjects affected / exposed	1 / 21 (4.76%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		

Frequency threshold for reporting non-serious adverse events: 5 %

<b>Non-serious adverse events</b>	Prospective Set		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	21 / 21 (100.00%)		
Injury, poisoning and procedural complications			
Skin abrasion			
subjects affected / exposed	3 / 21 (14.29%)		
occurrences (all)	4		
Procedural pain			
subjects affected / exposed	2 / 21 (9.52%)		
occurrences (all)	4		
Head injury			
subjects affected / exposed	2 / 21 (9.52%)		
occurrences (all)	2		
Ear injury			
subjects affected / exposed	2 / 21 (9.52%)		
occurrences (all)	2		
Thermal burn			
subjects affected / exposed	2 / 21 (9.52%)		
occurrences (all)	2		
Skin laceration			
subjects affected / exposed	3 / 21 (14.29%)		
occurrences (all)	3		
Cardiac disorders			
Aortic valve incompetence			
subjects affected / exposed	5 / 21 (23.81%)		
occurrences (all)	5		
Mitral valve incompetence			
subjects affected / exposed	5 / 21 (23.81%)		
occurrences (all)	5		

Nervous system disorders Carpal tunnel syndrome subjects affected / exposed occurrences (all)	2 / 21 (9.52%) 2		
Seizure subjects affected / exposed occurrences (all)	2 / 21 (9.52%) 2		
Blood and lymphatic system disorders Anaemia subjects affected / exposed occurrences (all)	2 / 21 (9.52%) 2		
General disorders and administration site conditions Pyrexia subjects affected / exposed occurrences (all)	11 / 21 (52.38%) 48		
Gait disturbance subjects affected / exposed occurrences (all)	2 / 21 (9.52%) 2		
Eye disorders Blepharitis subjects affected / exposed occurrences (all)	2 / 21 (9.52%) 2		
Gastrointestinal disorders Vomiting subjects affected / exposed occurrences (all)	3 / 21 (14.29%) 3		
Diarrhoea subjects affected / exposed occurrences (all)	13 / 21 (61.90%) 21		
Constipation subjects affected / exposed occurrences (all)	3 / 21 (14.29%) 3		
Anal fissure subjects affected / exposed occurrences (all)	2 / 21 (9.52%) 2		
Respiratory, thoracic and mediastinal disorders			

Wheezing			
subjects affected / exposed	2 / 21 (9.52%)		
occurrences (all)	2		
Rhinitis allergic			
subjects affected / exposed	4 / 21 (19.05%)		
occurrences (all)	4		
Oropharyngeal pain			
subjects affected / exposed	4 / 21 (19.05%)		
occurrences (all)	5		
Cough			
subjects affected / exposed	6 / 21 (28.57%)		
occurrences (all)	11		
Rhinorrhoea			
subjects affected / exposed	3 / 21 (14.29%)		
occurrences (all)	3		
Skin and subcutaneous tissue disorders			
Urticaria			
subjects affected / exposed	6 / 21 (28.57%)		
occurrences (all)	227		
Dermatitis			
subjects affected / exposed	2 / 21 (9.52%)		
occurrences (all)	3		
Dermatitis allergic			
subjects affected / exposed	4 / 21 (19.05%)		
occurrences (all)	4		
Dermatitis atopic			
subjects affected / exposed	2 / 21 (9.52%)		
occurrences (all)	2		
Dermatitis diaper			
subjects affected / exposed	2 / 21 (9.52%)		
occurrences (all)	2		
Eczema			
subjects affected / exposed	2 / 21 (9.52%)		
occurrences (all)	3		
Erythema			

subjects affected / exposed occurrences (all)	3 / 21 (14.29%) 3		
Rash subjects affected / exposed occurrences (all)	2 / 21 (9.52%) 2		
Rash macular subjects affected / exposed occurrences (all)	2 / 21 (9.52%) 4		
Psychiatric disorders Sleep disorder subjects affected / exposed occurrences (all)	3 / 21 (14.29%) 3		
Infections and infestations Carbuncle subjects affected / exposed occurrences (all)	2 / 21 (9.52%) 2		
Conjunctivitis subjects affected / exposed occurrences (all)	5 / 21 (23.81%) 8		
Ear infection subjects affected / exposed occurrences (all)	2 / 21 (9.52%) 3		
Furuncle subjects affected / exposed occurrences (all)	3 / 21 (14.29%) 4		
Gastroenteritis subjects affected / exposed occurrences (all)	4 / 21 (19.05%) 8		
COVID-19 subjects affected / exposed occurrences (all)	7 / 21 (33.33%) 8		
Bronchitis subjects affected / exposed occurrences (all)	11 / 21 (52.38%) 24		
Otitis media			

subjects affected / exposed	2 / 21 (9.52%)		
occurrences (all)	7		
Nasopharyngitis			
subjects affected / exposed	14 / 21 (66.67%)		
occurrences (all)	96		
Influenza			
subjects affected / exposed	3 / 21 (14.29%)		
occurrences (all)	3		
Impetigo			
subjects affected / exposed	2 / 21 (9.52%)		
occurrences (all)	2		
Viral infection			
subjects affected / exposed	7 / 21 (33.33%)		
occurrences (all)	11		
Varicella			
subjects affected / exposed	4 / 21 (19.05%)		
occurrences (all)	4		
Urinary tract infection			
subjects affected / exposed	6 / 21 (28.57%)		
occurrences (all)	6		
Upper respiratory tract infection			
subjects affected / exposed	13 / 21 (61.90%)		
occurrences (all)	38		
Tonsillitis			
subjects affected / exposed	5 / 21 (23.81%)		
occurrences (all)	5		
Sinusitis			
subjects affected / exposed	3 / 21 (14.29%)		
occurrences (all)	5		
Rhinitis			
subjects affected / exposed	7 / 21 (33.33%)		
occurrences (all)	16		
Pneumonia			
subjects affected / exposed	4 / 21 (19.05%)		
occurrences (all)	5		
Pharyngotonsillitis			

subjects affected / exposed	2 / 21 (9.52%)		
occurrences (all)	2		
Pharyngitis			
subjects affected / exposed	6 / 21 (28.57%)		
occurrences (all)	8		
Parotitis			
subjects affected / exposed	2 / 21 (9.52%)		
occurrences (all)	2		
Otitis media acute			
subjects affected / exposed	3 / 21 (14.29%)		
occurrences (all)	3		
Metabolism and nutrition disorders			
Vitamin D deficiency			
subjects affected / exposed	2 / 21 (9.52%)		
occurrences (all)	2		



## More information

### Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
11 November 2015	The following changes were made as per Amendment 01: 1) Added section regarding benefit/risk assessment of participants treated with Elaprase in completed clinical studies. 2) Added a section regarding monitoring of burden/risk to participants in this study (SHP-ELA-401). 3) Added a Visit window of 48 hours for completion of study activities for all visits. 4) Added Exclusion criterion regarding hypersensitivity to active substance or excipients for Group 1: Prospective Patient Group. 5) Allowed home infusion of Elaprase by a trained healthcare provider, with Sponsor approval.
05 August 2016	The following changes were made as per Amendment 02: 1) Changed planned enrollment and Primary Growth Analysis. 2) Added CRIM status evaluation and interpretation. 3) Changed study objectives. 4) Changed study outcome measures. 5) Added visit to the study schedule of events.

Notes:

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### Interruptions (globally)

Were there any global interruptions to the trial? No

### Limitations and caveats

None reported