



Clinical trial results:

An Open-label, Single-dose, Pharmacokinetic Study to Evaluate IV Eptinezumab in Children and Adolescents with Migraine, Followed by an Optional, Multiple-dose, Open-label Extension Period

Summary

EudraCT number	2022-004102-29
Trial protocol	Outside EU/EEA
Global end of trial date	21 August 2023

Results information

Result version number	v3 (current)
This version publication date	24 March 2024
First version publication date	15 April 2023
Version creation reason	

Trial information

Trial identification

Sponsor protocol code	18922A
-----------------------	--------

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT04537429
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	H. Lundbeck A/S
Sponsor organisation address	Ottiliavej 9, Valby, Denmark, 2500
Public contact	LundbeckClinicalTrials@lundbeck.com, H. Lundbeck A/S, +45 36301311, LundbeckClinicalTrials@lundbeck.com
Scientific contact	LundbeckClinicalTrials@lundbeck.com, H. Lundbeck A/S, +45 36301311, LundbeckClinicalTrials@lundbeck.com

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	Yes
EMA paediatric investigation plan number(s)	EMA-002243-PIP01-17
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	20 October 2022
Is this the analysis of the primary completion data?	No
Global end of trial reached?	Yes
Global end of trial date	21 August 2023
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The main objective of the trial was to characterize the pharmacokinetics (PK) profile of eptinezumab after a single intravenous (IV) administration in pediatric participants 6 to 17 years of age.

Protection of trial subjects:

This study was conducted in compliance with Good Clinical Practice and in accordance with the ethical principles described in the Declaration of Helsinki.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	04 August 2020
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 States: 28
Worldwide total number of subjects	28
EEA total number of subjects	0

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)	12
Adolescents (12-17 years)	16
Adults (18-64 years)	0
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

The study consisted of a single-dose, 20-week Main Study Period (Part A) and an optional 44-week multiple-dose Extension Period (Part B).

Period 1

Period 1 title	Part A
Is this the baseline period?	Yes
Allocation method	Not applicable
Blinding used	Not blinded

Arms

Are arms mutually exclusive?	Yes
------------------------------	-----

Arm title	Eptinezumab (Age Group 6 to 11 Years)
------------------	---------------------------------------

Arm description:

Participants received a single dose of eptinezumab on Day 1 based on the highest target adult exposure of eptinezumab, adjusted for the participant's body weight.

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

Dosage and administration details:

Eptinezumab will be administered per schedule specified in the arm description.

Arm title	Eptinezumab (Age Group 12 to 17 Years)
------------------	--

Arm description:

Participants received a single dose of eptinezumab on Day 1 based on the highest target adult exposure of eptinezumab, adjusted for the participant's body weight.

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

Dosage and administration details:

Eptinezumab will be administered per schedule specified in the arm description.

Number of subjects in period 1	Eptinezumab (Age Group 6 to 11 Years)	Eptinezumab (Age Group 12 to 17 Years)
Started	12	16
Received at least 1 dose of study drug	12	16
Completed	11	14
Not completed	1	2
Consent withdrawn by subject	1	-
Other than specified	-	1
Lost to follow-up	-	1

Period 2

Period 2 title	Part B
Is this the baseline period?	No
Allocation method	Not applicable
Blinding used	Not blinded

Arms

Are arms mutually exclusive?	Yes
Arm title	Eptinezumab (Age Group 6 to 11 Years)

Arm description:

Participants continuing into Part B received 3 additional doses of eptinezumab 12 weeks apart based on the highest target adult exposure of eptinezumab, adjusted for the participant's body weight.

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

Dosage and administration details:

Eptinezumab will be administered per schedule specified in the arm description.

Arm title	Eptinezumab (Age Group 12 to 17 Years)
------------------	--

Arm description:

Participants continuing into Part B received 3 additional doses of eptinezumab 12 weeks apart based on the highest target adult exposure of eptinezumab, adjusted for the participant's body weight.

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

Dosage and administration details:

Eptinezumab will be administered per schedule specified in the arm description.

Number of subjects in period 2^[1]	Eptinezumab (Age Group 6 to 11 Years)	Eptinezumab (Age Group 12 to 17 Years)
Started	10	13
Received at least 1 dose of study drug	10	13
Completed	9	10
Not completed	1	3
Lost to follow-up	1	-
Protocol deviation	-	2
Lack of efficacy	-	1

Notes:

[1] - The number of subjects starting the period is not consistent with the number completing the preceding period. It is expected the number of subjects starting the subsequent period will be the same as the number completing the preceding period.

Justification: 23 participants started Period 2

Baseline characteristics

Reporting groups

Reporting group title	Eptinezumab (Age Group 6 to 11 Years)
-----------------------	---------------------------------------

Reporting group description:

Participants received a single dose of eptinezumab on Day 1 based on the highest target adult exposure of eptinezumab, adjusted for the participant's body weight.

Reporting group title	Eptinezumab (Age Group 12 to 17 Years)
-----------------------	--

Reporting group description:

Participants received a single dose of eptinezumab on Day 1 based on the highest target adult exposure of eptinezumab, adjusted for the participant's body weight.

Reporting group values	Eptinezumab (Age Group 6 to 11 Years)	Eptinezumab (Age Group 12 to 17 Years)	Total
Number of subjects	12	16	28
Age Categorical Units: Subjects			
Children (2-11 years)	12	0	12
Adolescents (12-17 years)	0	16	16
Age Continuous Units: years			
arithmetic mean	9.3	15.1	
standard deviation	± 1.97	± 1.41	-
Gender Categorical Units: Subjects			
Female	10	10	20
Male	2	6	8
Race Units: Subjects			
Asian	1	0	1
Black or African American	1	1	2
White or Caucasian	9	15	24
Other	1	0	1
Ethnicity Units: Subjects			
Hispanic or Latino	1	5	6
Not Hispanic or Latino	11	11	22

End points

End points reporting groups

Reporting group title	Eptinezumab (Age Group 6 to 11 Years)
Reporting group description: Participants received a single dose of eptinezumab on Day 1 based on the highest target adult exposure of eptinezumab, adjusted for the participant's body weight.	
Reporting group title	Eptinezumab (Age Group 12 to 17 Years)
Reporting group description: Participants received a single dose of eptinezumab on Day 1 based on the highest target adult exposure of eptinezumab, adjusted for the participant's body weight.	
Reporting group title	Eptinezumab (Age Group 6 to 11 Years)
Reporting group description: Participants continuing into Part B received 3 additional doses of eptinezumab 12 weeks apart based on the highest target adult exposure of eptinezumab, adjusted for the participant's body weight.	
Reporting group title	Eptinezumab (Age Group 12 to 17 Years)
Reporting group description: Participants continuing into Part B received 3 additional doses of eptinezumab 12 weeks apart based on the highest target adult exposure of eptinezumab, adjusted for the participant's body weight.	

Primary: Part A: Area Under the Concentration Versus Time Curve From Time Zero to Infinity (AUC0-inf) of Eptinezumab

End point title	Part A: Area Under the Concentration Versus Time Curve From Time Zero to Infinity (AUC0-inf) of Eptinezumab ^[1]
End point description: PK Part A set (PKS_A) included all treated participants in Part A with at least 1 post-infusion PK sample in Part A. Here, 'Overall number of participants analyzed' = participants evaluable for this endpoint. n = participants evaluable for specified category. '99999' signifies 'data not available since no participants were evaluable in that category'. '9999' signifies 'due to single participant, geometric coefficient of variation data could not be calculated'.	
End point type	Primary
End point timeframe: Day 1 (the day of infusion) through Week 20	
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: No statistical analysis was not planned for this endpoint.	

End point values	Eptinezumab (Age Group 6 to 11 Years)	Eptinezumab (Age Group 12 to 17 Years)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	10	15		
Units: hours*micrograms/milliliter (h*µg/mL)				
geometric mean (geometric coefficient of variation)				
Weight Group >20 kg - <=40 kg (n=10,0)	87780 (± 33.1)	99999 (± 99999)		
Weight Group >40 kg (n=1,15)	141700 (± 9999)	91570 (± 15.1)		

Statistical analyses

No statistical analyses for this end point

Primary: Part A: Maximum Observed Plasma Concentration (Cmax) of Eptinezumab

End point title	Part A: Maximum Observed Plasma Concentration (Cmax) of Eptinezumab ^[2]
-----------------	--

End point description:

PKS_A included all treated participants in Part A with at least 1 post-infusion PK sample in Part A. Here, 'Overall number of participants analyzed' = participants evaluable for this endpoint. n = participants evaluable for specified category. '99999' signifies 'data not available since no participants were evaluable in that category'. '9999' signifies 'due to single participant, geometric coefficient of variation data could not be calculated'.

End point type	Primary
----------------	---------

End point timeframe:

Day 1 (the day of infusion) through Week 20

Notes:

[2] - 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: No statistical analysis was not planned for this endpoint.

End point values	Eptinezumab (Age Group 6 to 11 Years)	Eptinezumab (Age Group 12 to 17 Years)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	11	16		
Units: µg/mL				
geometric mean (geometric coefficient of variation)				
Weight Group >20 kg - <=40 kg (n=11,0)	126.2 (± 31.9)	99999 (± 99999)		
Weight Group >40 kg (n=1,16)	215.7 (± 9999)	129.7 (± 32.4)		

Statistical analyses

No statistical analyses for this end point

Secondary: Part A: Concentration for Eptinezumab Determined From the Data Without Interpolation at Week 12 (C12wk)

End point title	Part A: Concentration for Eptinezumab Determined From the Data Without Interpolation at Week 12 (C12wk)
-----------------	---

End point description:

PKS_A included all treated participants in Part A with at least 1 post-infusion PK sample in Part A. Here, 'Overall number of participants analyzed' = participants evaluable for this endpoint. n = participants evaluable for specified category. '99999' signifies 'data not available since no participants were evaluable in that category'. '9999' signifies 'due to single participant, geometric coefficient of variation data could not be calculated'.

End point type	Secondary
End point timeframe:	
Week 12	

End point values	Eptinezumab (Age Group 6 to 11 Years)	Eptinezumab (Age Group 12 to 17 Years)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	10	15		
Units: µg/mL				
geometric mean (geometric coefficient of variation)				
Weight Group >20 kg - <=40 kg (n=10,0)	6.440 (± 117)	99999 (± 99999)		
Weight Group >40 kg (n=1,15)	13.38 (± 9999)	9.502 (± 28.5)		

Statistical analyses

No statistical analyses for this end point

Secondary: Part A: Area Under the Concentration Versus Time Curve From Time Zero to the Time of Last Quantifiable Concentration (AUC0-t last) of Eptinezumab

End point title	Part A: Area Under the Concentration Versus Time Curve From Time Zero to the Time of Last Quantifiable Concentration (AUC0-t last) of Eptinezumab
-----------------	---

End point description:

PKS_A included all treated participants in Part A with at least 1 post-infusion PK sample in Part A. Here, 'Overall number of participants analyzed' = participants evaluable for this endpoint. n = participants evaluable for specified category. '99999' signifies 'data not available since no participants were evaluable in that category'. '9999' signifies 'due to single participant, geometric coefficient of variation data could not be calculated'.

End point type	Secondary
End point timeframe:	
Day 1 (the day of infusion) through Week 20	

End point values	Eptinezumab (Age Group 6 to 11 Years)	Eptinezumab (Age Group 12 to 17 Years)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	11	16		
Units: hours*µg/mL				
geometric mean (geometric coefficient of variation)				
Weight Group >20 kg - <=40 kg (n=11,0)	79260 (± 40.6)	99999 (± 99999)		
Weight Group >40 kg (n=1,16)	138000 (± 9999)	87030 (± 15.3)		

Statistical analyses

No statistical analyses for this end point

Secondary: Part A: Terminal Elimination Half-life (t_{1/2}) of Eptinezumab

End point title	Part A: Terminal Elimination Half-life (t _{1/2}) of Eptinezumab
-----------------	---

End point description:

PKS_A included all treated participants in Part A with at least 1 post-infusion PK sample in Part A. Here, 'Overall number of participants analyzed' = participants evaluable for this endpoint. n = participants evaluable for specified category. '99999' signifies 'data not available since no participants were evaluable in that category'.

End point type	Secondary
----------------	-----------

End point timeframe:

Day 1 (the day of infusion) through Week 20

End point values	Eptinezumab (Age Group 6 to 11 Years)	Eptinezumab (Age Group 12 to 17 Years)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	10	15		
Units: hours				
median (inter-quartile range (Q1-Q3))				
Weight Group >20 kg - <=40 kg (n=10,0)	659.5 (584.5 to 729.9)	99999 (99999 to 99999)		
Weight Group >40 kg (n=1,15)	697.3 (697.3 to 697.3)	702.4 (609.2 to 800.0)		

Statistical analyses

No statistical analyses for this end point

Secondary: Part A: Time to Reach C_{max} (t_{max}) of Eptinezumab

End point title	Part A: Time to Reach C _{max} (t _{max}) of Eptinezumab
-----------------	---

End point description:

PKS_A included all treated participants in Part A with at least 1 post-infusion PK sample in Part A. Here, 'Overall number of participants analyzed' = participants evaluable for this endpoint. n = participants evaluable for specified category. '99999' signifies 'data not available since no participants were evaluable in that category'.

End point type	Secondary
----------------	-----------

End point timeframe:

Day 1 (the day of infusion) through Week 20

End point values	Eptinezumab (Age Group 6 to 11 Years)	Eptinezumab (Age Group 12 to 17 Years)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	11	16		
Units: hours				
median (inter-quartile range (Q1-Q3))				
Weight Group >20 kg - <=40 kg (n=11,0)	0.6830 (0.5830 to 2.500)	99999 (99999 to 99999)		
Weight Group >40 kg (n=1,16)	2.617 (2.617 to 2.617)	1.708 (0.6165 to 2.675)		

Statistical analyses

No statistical analyses for this end point

Secondary: Part A: Volume of Distribution (Vz) of Eptinezumab

End point title	Part A: Volume of Distribution (Vz) of Eptinezumab
End point description:	
PKS_A included all treated participants in Part A with at least 1 post-infusion PK sample in Part A. Here, 'Overall number of participants analyzed' = participants evaluable for this endpoint. n = participants evaluable for specified category. '99999' signifies 'data not available since no participants were evaluable in that category'. '9999' signifies 'due to single participant, geometric coefficient of variation data could not be calculated'.	
End point type	Secondary
End point timeframe:	
Day 1 (the day of infusion) through Week 20	

End point values	Eptinezumab (Age Group 6 to 11 Years)	Eptinezumab (Age Group 12 to 17 Years)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	10	15		
Units: liters				
geometric mean (geometric coefficient of variation)				
Weight Group >20 kg - <=40 kg (n=10,0)	1.591 (± 33.7)	99999 (± 99999)		
Weight Group >40 kg (n=1,15)	2.130 (± 9999)	3.313 (± 25.2)		

Statistical analyses

No statistical analyses for this end point

Secondary: Part A: Plasma Clearance (CL) of Eptinezumab

End point title	Part A: Plasma Clearance (CL) of Eptinezumab
-----------------	--

End point description:

PKS_A included all treated participants in Part A with at least 1 post-infusion PK sample in Part A. Here, 'Overall number of participants analyzed' = participants evaluable for this endpoint. n = participants evaluable for specified category. '99999' signifies 'data not available since no participants were evaluable in that category'. '9999' signifies 'due to single participant, geometric coefficient of variation data could not be calculated'.

End point type	Secondary
----------------	-----------

End point timeframe:

Day 1 (the day of infusion) through Week 20

End point values	Eptinezumab (Age Group 6 to 11 Years)	Eptinezumab (Age Group 12 to 17 Years)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	10	15		
Units: liters/hour				
geometric mean (geometric coefficient of variation)				
Weight Group >20 kg - <=40 kg (n=10,0)	0.001709 (± 33.1)	99999 (± 99999)		
Weight Group >40 kg (n=1,15)	0.002118 (± 9999)	0.003276 (± 15.1)		

Statistical analyses

No statistical analyses for this end point

Secondary: Part A and B: Number of Participants With Binding Anti-Drug Antibodies (ADAs)

End point title	Part A and B: Number of Participants With Binding Anti-Drug Antibodies (ADAs)
-----------------	---

End point description:

Number of participants with positive ADAs are reported. All-patients-treated in Part A set (APTS_A) and All-patients-treated in Part B set (APTS_B) included all participants treated with eptinezumab in Part A and Part B. Here, 'overall number of participants analyzed' = participants evaluable for this endpoint.

End point type	Secondary
----------------	-----------

End point timeframe:

Week 20, Weeks 24-64

End point values	Eptinezumab (Age Group 6 to 11 Years)	Eptinezumab (Age Group 6 to 11 Years)	Eptinezumab (Age Group 12 to 17 Years)	Eptinezumab (Age Group 12 to 17 Years)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	11	10	14	13
Units: participants	0	0	2	1

Statistical analyses

No statistical analyses for this end point

Secondary: Part B: Area Under the Concentration Versus Time Curve From Week 44 to Week 64 (AUCw44-w64) of Eptinezumab

End point title	Part B: Area Under the Concentration Versus Time Curve From Week 44 to Week 64 (AUCw44-w64) of Eptinezumab
End point description: PKS_B included all treated participants in Part B with at least 1 post-infusion PK sample in Part B. Here, 'Overall number of participants analyzed' = participants evaluable for this endpoint. n = participants evaluable for specified category. '99999' signifies 'data not available since no participants were enrolled in that category'.	
End point type	Secondary
End point timeframe: Week 44 through Week 64	

End point values	Eptinezumab (Age Group 6 to 11 Years)	Eptinezumab (Age Group 12 to 17 Years)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	8	9		
Units: h*µg/mL				
geometric mean (geometric coefficient of variation)				
Low dose (n=6,0)	161100 (± 37.2)	99999 (± 99999)		
High dose (n=2,9)	253700 (± 8.69)	205600 (± 20.2)		

Statistical analyses

No statistical analyses for this end point

Secondary: Part A and B: Number of Participants With Neutralizing Binding ADA (NAb)

End point title	Part A and B: Number of Participants With Neutralizing Binding ADA (NAb)
End point description: Number of participants with non-reactive NAb are reported. APTS_A and APTS_B included all participants treated with eptinezumab in Part A and Part B. Here, 'overall number of participants	

analyzed' = participants evaluable for this endpoint.

End point type	Secondary
End point timeframe:	
Week 20, Weeks 24-64	

End point values	Eptinezumab (Age Group 6 to 11 Years)	Eptinezumab (Age Group 6 to 11 Years)	Eptinezumab (Age Group 12 to 17 Years)	Eptinezumab (Age Group 12 to 17 Years)
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	11	10	14	13
Units: participants	0	0	2	0

Statistical analyses

No statistical analyses for this end point

Secondary: Part B: Cmax of Eptinezumab

End point title	Part B: Cmax of Eptinezumab
End point description:	
PKS_B included all treated participants in Part B with at least 1 post-infusion PK sample in Part B. Here, 'Overall number of participants analyzed' = participants evaluable for this endpoint. n = participants evaluable for specified category. '99999' signifies 'data not available since no participants were enrolled in that category'.	
End point type	Secondary
End point timeframe:	
Week 44 through Week 64	

End point values	Eptinezumab (Age Group 6 to 11 Years)	Eptinezumab (Age Group 12 to 17 Years)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	8	10		
Units: µg/mL				
geometric mean (geometric coefficient of variation)				
Low dose (n=6,0)	152.5 (± 65.8)	99999 (± 99999)		
High dose (n=2,10)	147.7 (± 14.3)	122.6 (± 23.4)		

Statistical analyses

No statistical analyses for this end point

Secondary: Part B: Predose Concentration for Eptinezumab Determined From the

Data Without Interpolation at Week 44 (C44wk)

End point title	Part B: Predose Concentration for Eptinezumab Determined From the Data Without Interpolation at Week 44 (C44wk)
-----------------	---

End point description:

PKS_B included all treated participants in Part B with at least 1 post-infusion PK sample in Part B. Here, 'Overall number of participants analyzed' = participants evaluable for this endpoint. n = participants evaluable for specified category. '99999' signifies 'data not available since no participants were enrolled in that category'.

End point type	Secondary
----------------	-----------

End point timeframe:

Week 44

End point values	Eptinezumab (Age Group 6 to 11 Years)	Eptinezumab (Age Group 12 to 17 Years)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	7	10		
Units: µg/mL				
geometric mean (geometric coefficient of variation)				
Low dose (n=5,0)	8.321 (± 26.3)	99999 (± 99999)		
High dose (n=2,10)	4.660 (± 10.8)	9.431 (± 34.0)		

Statistical analyses

No statistical analyses for this end point

Secondary: Part B: tmax of Eptinezumab

End point title	Part B: tmax of Eptinezumab
-----------------	-----------------------------

End point description:

PKS_B included all treated participants in Part B with at least 1 post-infusion PK sample in Part B. Here, 'Overall number of participants analyzed' = participants evaluable for this endpoint. n = participants evaluable for specified category. '99999' signifies 'data not available since no participants were enrolled in that category'.

End point type	Secondary
----------------	-----------

End point timeframe:

Week 44 through Week 64

End point values	Eptinezumab (Age Group 6 to 11 Years)	Eptinezumab (Age Group 12 to 17 Years)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	8	10		
Units: hours				
median (inter-quartile range (Q1-Q3))				

Low dose (n=6,0)	1.63 (0.67 to 2.50)	99999 (99999 to 99999)		
High dose (n=2,10)	1.70 (0.75 to 2.65)	0.68 (0.60 to 2.47)		

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Baseline (Day 1) up to Week 64

Adverse event reporting additional description:

APTS_A and APTS_B included all participants treated with eptinezumab in Part A and Part B, respectively.

Assessment type	Systematic
-----------------	------------

Dictionary used

Dictionary name	MedDRA
-----------------	--------

Dictionary version	25.0
--------------------	------

Reporting groups

Reporting group title	Part A Eptinezumab (Age Group 6 to 11 Years)
-----------------------	--

Reporting group description:

Participants received a single dose of eptinezumab on Day 1 based on the highest target adult exposure of eptinezumab, adjusted for the participant's body weight.

Reporting group title	Part B Eptinezumab (Age Group 12 to 17 Years)
-----------------------	---

Reporting group description:

Participants continuing into Part B received 3 additional doses of eptinezumab 12 weeks apart based on the highest target adult exposure of eptinezumab, adjusted for the participant's body weight.

Reporting group title	Part B Eptinezumab (Age Group 6 to 11 Years)
-----------------------	--

Reporting group description:

Participants continuing into Part B received 3 additional doses of eptinezumab 12 weeks apart based on the highest target adult exposure of eptinezumab, adjusted for the participant's body weight.

Reporting group title	Part A Eptinezumab (Age Group 12 to 17 Years)
-----------------------	---

Reporting group description:

Participants received a single dose of eptinezumab on Day 1 based on the highest target adult exposure of eptinezumab, adjusted for the participant's body weight.

Serious adverse events	Part A Eptinezumab (Age Group 6 to 11 Years)	Part B Eptinezumab (Age Group 12 to 17 Years)	Part B Eptinezumab (Age Group 6 to 11 Years)
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 12 (0.00%)	0 / 13 (0.00%)	0 / 10 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events			

Serious adverse events	Part A Eptinezumab (Age Group 12 to 17 Years)		
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 16 (0.00%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events			

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

Non-serious adverse events	Part A Eptinezumab (Age Group 6 to 11 Years)	Part B Eptinezumab (Age Group 12 to 17 Years)	Part B Eptinezumab (Age Group 6 to 11 Years)
Total subjects affected by non-serious adverse events subjects affected / exposed	7 / 12 (58.33%)	9 / 13 (69.23%)	5 / 10 (50.00%)
Vascular disorders Orthostatic hypotension alternative assessment type: Non- systematic subjects affected / exposed occurrences (all)	0 / 12 (0.00%) 0	0 / 13 (0.00%) 0	0 / 10 (0.00%) 0
Surgical and medical procedures Wisdom teeth removal subjects affected / exposed occurrences (all)	0 / 12 (0.00%) 0	1 / 13 (7.69%) 1	0 / 10 (0.00%) 0
General disorders and administration site conditions Injection site erythema subjects affected / exposed occurrences (all)	0 / 12 (0.00%) 0	0 / 13 (0.00%) 0	1 / 10 (10.00%) 1
Respiratory, thoracic and mediastinal disorders Sneezing subjects affected / exposed occurrences (all) Respiratory tract congestion subjects affected / exposed occurrences (all) Nasal congestion subjects affected / exposed occurrences (all) Cough alternative assessment type: Non- systematic	0 / 12 (0.00%) 0 0 / 12 (0.00%) 0 0 / 12 (0.00%) 0 0 / 12 (0.00%) 0	0 / 13 (0.00%) 0 0 / 13 (0.00%) 0 0 / 13 (0.00%) 0	1 / 10 (10.00%) 1 1 / 10 (10.00%) 1 2 / 10 (20.00%) 3

subjects affected / exposed	1 / 12 (8.33%)	0 / 13 (0.00%)	0 / 10 (0.00%)
occurrences (all)	1	0	0
Epistaxis			
alternative assessment type: Non-systematic			
subjects affected / exposed	0 / 12 (0.00%)	1 / 13 (7.69%)	0 / 10 (0.00%)
occurrences (all)	0	1	0
Rhinorrhoea			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 12 (8.33%)	0 / 13 (0.00%)	1 / 10 (10.00%)
occurrences (all)	1	0	1
Psychiatric disorders			
Anxiety			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 12 (8.33%)	1 / 13 (7.69%)	0 / 10 (0.00%)
occurrences (all)	1	1	0
Adjustment disorder with depressed mood			
alternative assessment type: Non-systematic			
subjects affected / exposed	0 / 12 (0.00%)	0 / 13 (0.00%)	0 / 10 (0.00%)
occurrences (all)	0	0	0
Depression			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 12 (8.33%)	0 / 13 (0.00%)	0 / 10 (0.00%)
occurrences (all)	1	0	0
Sleep terror			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 12 (8.33%)	0 / 13 (0.00%)	0 / 10 (0.00%)
occurrences (all)	1	0	0
Insomnia			
subjects affected / exposed	0 / 12 (0.00%)	1 / 13 (7.69%)	0 / 10 (0.00%)
occurrences (all)	0	1	0
Investigations			
Weight increased			
alternative assessment type: Non-systematic			

subjects affected / exposed	0 / 12 (0.00%)	1 / 13 (7.69%)	0 / 10 (0.00%)
occurrences (all)	0	1	0
Blood calcium increased			
alternative assessment type: Non-systematic			
subjects affected / exposed	0 / 12 (0.00%)	0 / 13 (0.00%)	0 / 10 (0.00%)
occurrences (all)	0	0	0
Eosinophil count increased			
subjects affected / exposed	0 / 12 (0.00%)	1 / 13 (7.69%)	0 / 10 (0.00%)
occurrences (all)	0	1	0
Protein urine			
subjects affected / exposed	0 / 12 (0.00%)	0 / 13 (0.00%)	1 / 10 (10.00%)
occurrences (all)	0	0	1
Weight decreased			
subjects affected / exposed	0 / 12 (0.00%)	1 / 13 (7.69%)	0 / 10 (0.00%)
occurrences (all)	0	1	0
Injury, poisoning and procedural complications			
Accidental overdose			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 12 (8.33%)	0 / 13 (0.00%)	0 / 10 (0.00%)
occurrences (all)	1	0	0
Ligament sprain			
subjects affected / exposed	0 / 12 (0.00%)	0 / 13 (0.00%)	1 / 10 (10.00%)
occurrences (all)	0	0	1
Heat exhaustion			
subjects affected / exposed	0 / 12 (0.00%)	0 / 13 (0.00%)	1 / 10 (10.00%)
occurrences (all)	0	0	1
Cardiac disorders			
Palpitations			
subjects affected / exposed	0 / 12 (0.00%)	1 / 13 (7.69%)	0 / 10 (0.00%)
occurrences (all)	0	1	0
Nervous system disorders			
Migraine			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 12 (8.33%)	1 / 13 (7.69%)	1 / 10 (10.00%)
occurrences (all)	1	1	1
Dizziness			

alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	0 / 12 (0.00%) 0	1 / 13 (7.69%) 2	0 / 10 (0.00%) 0
Dizziness postural subjects affected / exposed occurrences (all)	0 / 12 (0.00%) 0	0 / 13 (0.00%) 0	1 / 10 (10.00%) 1
Blood and lymphatic system disorders Iron deficiency anaemia alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 12 (8.33%) 1	0 / 13 (0.00%) 0	0 / 10 (0.00%) 0
Eye disorders Photopsia alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 12 (8.33%) 1	0 / 13 (0.00%) 0	0 / 10 (0.00%) 0
Gastrointestinal disorders Dental caries subjects affected / exposed occurrences (all)	0 / 12 (0.00%) 0	1 / 13 (7.69%) 1	0 / 10 (0.00%) 0
Skin and subcutaneous tissue disorders Pruritus alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	0 / 12 (0.00%) 0	0 / 13 (0.00%) 0	0 / 10 (0.00%) 0
Renal and urinary disorders Proteinuria alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 12 (8.33%) 1	1 / 13 (7.69%) 1	0 / 10 (0.00%) 0
Infections and infestations Urinary tract infection alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 12 (8.33%) 1	0 / 13 (0.00%) 0	1 / 10 (10.00%) 1
Pyuria alternative assessment type: Non-			

systematic			
subjects affected / exposed	1 / 12 (8.33%)	0 / 13 (0.00%)	0 / 10 (0.00%)
occurrences (all)	1	0	0
Pharyngitis streptococcal			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 12 (8.33%)	2 / 13 (15.38%)	0 / 10 (0.00%)
occurrences (all)	1	2	0
Gastroenteritis viral			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 12 (8.33%)	0 / 13 (0.00%)	0 / 10 (0.00%)
occurrences (all)	1	0	0
COVID-19			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 12 (8.33%)	0 / 13 (0.00%)	0 / 10 (0.00%)
occurrences (all)	1	0	0
Influenza			
alternative assessment type: Non-systematic			
subjects affected / exposed	0 / 12 (0.00%)	0 / 13 (0.00%)	0 / 10 (0.00%)
occurrences (all)	0	0	0
Respiratory tract infection viral			
subjects affected / exposed	0 / 12 (0.00%)	1 / 13 (7.69%)	0 / 10 (0.00%)
occurrences (all)	0	1	0
Metabolism and nutrition disorders			
Vitamin D deficiency			
alternative assessment type: Non-systematic			
subjects affected / exposed	0 / 12 (0.00%)	0 / 13 (0.00%)	0 / 10 (0.00%)
occurrences (all)	0	0	0
Vitamin B12 deficiency			
alternative assessment type: Non-systematic			
subjects affected / exposed	0 / 12 (0.00%)	0 / 13 (0.00%)	0 / 10 (0.00%)
occurrences (all)	0	0	0
Hypertriglyceridaemia			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 12 (8.33%)	0 / 13 (0.00%)	0 / 10 (0.00%)
occurrences (all)	1	0	0

Hypercholesterolaemia subjects affected / exposed occurrences (all)	0 / 12 (0.00%) 0	1 / 13 (7.69%) 1	1 / 10 (10.00%) 1
---	---------------------	---------------------	----------------------

Non-serious adverse events	Part A Eptinezumab (Age Group 12 to 17 Years)		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	9 / 16 (56.25%)		
Vascular disorders			
Orthostatic hypotension alternative assessment type: Non- systematic			
subjects affected / exposed	3 / 16 (18.75%)		
occurrences (all)	4		
Surgical and medical procedures			
Wisdom teeth removal			
subjects affected / exposed	0 / 16 (0.00%)		
occurrences (all)	0		
General disorders and administration site conditions			
Injection site erythema			
subjects affected / exposed	0 / 16 (0.00%)		
occurrences (all)	0		
Respiratory, thoracic and mediastinal disorders			
Sneezing			
subjects affected / exposed	0 / 16 (0.00%)		
occurrences (all)	0		
Respiratory tract congestion			
subjects affected / exposed	0 / 16 (0.00%)		
occurrences (all)	0		
Nasal congestion			
subjects affected / exposed	0 / 16 (0.00%)		
occurrences (all)	0		
Cough			
alternative assessment type: Non- systematic			
subjects affected / exposed	0 / 16 (0.00%)		
occurrences (all)	0		
Epistaxis			
alternative assessment type: Non- systematic			

subjects affected / exposed 1 / 16 (6.25%) occurrences (all) 1 Rhinorrhoea alternative assessment type: Non-systematic subjects affected / exposed 0 / 16 (0.00%) occurrences (all) 0			
Psychiatric disorders Anxiety alternative assessment type: Non-systematic subjects affected / exposed 0 / 16 (0.00%) occurrences (all) 0 Adjustment disorder with depressed mood alternative assessment type: Non-systematic subjects affected / exposed 1 / 16 (6.25%) occurrences (all) 1 Depression alternative assessment type: Non-systematic subjects affected / exposed 0 / 16 (0.00%) occurrences (all) 0 Sleep terror alternative assessment type: Non-systematic subjects affected / exposed 0 / 16 (0.00%) occurrences (all) 0 Insomnia subjects affected / exposed 0 / 16 (0.00%) occurrences (all) 0			
Investigations Weight increased alternative assessment type: Non-systematic subjects affected / exposed 1 / 16 (6.25%) occurrences (all) 1 Blood calcium increased alternative assessment type: Non-systematic			

subjects affected / exposed occurrences (all) Eosinophil count increased subjects affected / exposed occurrences (all) Protein urine subjects affected / exposed occurrences (all) Weight decreased subjects affected / exposed occurrences (all)	1 / 16 (6.25%) 1 0 / 16 (0.00%) 0 0 / 16 (0.00%) 0 0 / 16 (0.00%) 0		
Injury, poisoning and procedural complications Accidental overdose alternative assessment type: Non-systematic subjects affected / exposed occurrences (all) Ligament sprain subjects affected / exposed occurrences (all) Heat exhaustion subjects affected / exposed occurrences (all)	0 / 16 (0.00%) 0 0 / 16 (0.00%) 0 0 / 16 (0.00%) 0		
Cardiac disorders Palpitations subjects affected / exposed occurrences (all)	0 / 16 (0.00%) 0		
Nervous system disorders Migraine alternative assessment type: Non-systematic subjects affected / exposed occurrences (all) Dizziness alternative assessment type: Non-systematic subjects affected / exposed occurrences (all) Dizziness postural	0 / 16 (0.00%) 0 1 / 16 (6.25%) 1		

subjects affected / exposed occurrences (all)	0 / 16 (0.00%) 0		
Blood and lymphatic system disorders Iron deficiency anaemia alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	0 / 16 (0.00%) 0		
Eye disorders Photopsia alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	0 / 16 (0.00%) 0		
Gastrointestinal disorders Dental caries subjects affected / exposed occurrences (all)	0 / 16 (0.00%) 0		
Skin and subcutaneous tissue disorders Pruritus alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	1 / 16 (6.25%) 1		
Renal and urinary disorders Proteinuria alternative assessment type: Non-systematic subjects affected / exposed occurrences (all)	0 / 16 (0.00%) 0		
Infections and infestations Urinary tract infection alternative assessment type: Non-systematic subjects affected / exposed occurrences (all) Pyuria alternative assessment type: Non-systematic subjects affected / exposed occurrences (all) Pharyngitis streptococcal alternative assessment type: Non-	0 / 16 (0.00%) 0 0 / 16 (0.00%) 0		

systematic			
subjects affected / exposed	0 / 16 (0.00%)		
occurrences (all)	0		
Gastroenteritis viral			
alternative assessment type: Non-systematic			
subjects affected / exposed	0 / 16 (0.00%)		
occurrences (all)	0		
COVID-19			
alternative assessment type: Non-systematic			
subjects affected / exposed	0 / 16 (0.00%)		
occurrences (all)	0		
Influenza			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 16 (6.25%)		
occurrences (all)	1		
Respiratory tract infection viral			
subjects affected / exposed	0 / 16 (0.00%)		
occurrences (all)	0		
Metabolism and nutrition disorders			
Vitamin D deficiency			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 16 (6.25%)		
occurrences (all)	1		
Vitamin B12 deficiency			
alternative assessment type: Non-systematic			
subjects affected / exposed	1 / 16 (6.25%)		
occurrences (all)	1		
Hypertriglyceridaemia			
alternative assessment type: Non-systematic			
subjects affected / exposed	0 / 16 (0.00%)		
occurrences (all)	0		
Hypercholesterolaemia			
subjects affected / exposed	0 / 16 (0.00%)		
occurrences (all)	0		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
20 November 2020	- Added the eDiary and in consequence, added 2 exploratory endpoints related to the eDiary and updated the screening period to 4 weeks. - Inclusion criterion: upper percentile limit of Centers for Disease Control and Prevention growth charts changed from 95th to 97th percentile. - Inclusion criterion: specification of adequate method of contraception. - Added description of potential mitigations due to COVID-19 pandemic. - Added that re-screening of participants for other reasons than safety concerns may be granted. - Updated that use of acute medication was allowed if dose had been stable for ≥ 2 weeks; minimum required period prior to screening visits reduced from ≥ 12 to ≥ 2 weeks.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported