Clinical trial results:
A Phase 2, Open-Label, Repeat Dose Study to Assess the Safety, Tolerability, Pharmacokinetics, Pharmacodynamics and Proof-of-Concept of Intravenous ANX0005 in Subjects with Warm Autoimmune Hemolytic Anemia

Summary

EudraCT number	2020-003675-18
Trial protocol	DE AT FR CZ BG IT
Global end of trial date	17 January 2023

Results information

Result version number	v1 (current)
This version publication date	18 October 2026
First version publication date	18 October 2026

Trial information

Trial identification

Sponsor protocol code	ANX005-wAIHA-02

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT04691570
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Annexon, Inc.
Sponsor organisation address	1400 Sierra Point Parkway, Building C, 2nd Floor, Brisbane, CA, United States, 94005
Public contact	Study Coordinator, Annexon, Inc., 1 650-822-5500, clinicaltrials@annexonbio.com
Scientific contact	Study Coordinator, Annexon, Inc., 1 650-822-5500, clinicaltrials@annexonbio.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?	No

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	19 January 2024
Is this the analysis of the primary completion data?	Yes
Primary completion date	17 January 2023
Global end of trial reached?	Yes
Global end of trial date	17 January 2023
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The main objective of the study is to evaluate the safety and tolerability of two once-weekly intravenous (IV) infusions of ANX005 in participants with warm autoimmune hemolytic anemia (wAIHA).

Protection of trial subjects:

This study was conducted in accordance with the protocol and consensus ethical principles derived from international guidelines including the Declaration of Helsinki, Council for International Organizations of Medical Sciences (CIOMS) International Ethical Guidelines, applicable International Council for Harmonization of Technical Requirements for Pharmaceuticals for Human Use (ICH) GCP Guidelines, local IRB/IEC requirements and other applicable laws and regulations.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	10 November 2021
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	Austria: 3
Country: Number of subjects enrolled	Bulgaria: 2
Country: Number of subjects enrolled	Australia: 1
Worldwide total number of subjects	6
EEA total number of subjects	5

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)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	5

From 65 to 84 years	1
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

Participants with wAIHA who met eligibility criteria were enrolled. One participant was enrolled in the study but not dosed and data are not included for this participants

Period 1

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

Arms

Arm title	ANX005

Arm description:

Participants were administered intravenous infusion of ANX005 on Day 1 and Day 8.

Arm type	Experimental
Investigational medicinal product name	ANX005
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Infusion
Routes of administration	Intravenous use

Dosage and administration details:

Two one-weekly intravenous infusions

Number of subjects in period 1	ANX005
Started	6
Received at Least 1 Dose of Study Drug	6
Completed	6

Baseline characteristics

Reporting groups	
Reporting group title	ANX005
Reporting group description:	
Participants were administered intravenous infusion of ANX005 on Day 1 and Day 8.	

Reporting group values	ANX005	Total	
Number of subjects	6	6	
Age Categorical Units: Subjects			
In utero	0	0	
Preterm newborn infants (gestational age < 37 wks)	0	0	
Newborns (0-27 days)	0	0	
Infants and toddlers (28 days-23 months)	0	0	
Children (2-11 years)	0	0	
Adolescents (12-17 years)	0	0	
Adults (18-64 years)	5	5	
From 65-84 years	1	1	
85 years and over	0	0	
Age Continuous Units: years			
arithmetic mean	59.0		
standard deviation	± 7.56	-	
Gender Categorical Units: Subjects			
Female	5	5	
Male	1	1	

End points

End points reporting groups

Reporting group title	ANX005
Reporting group description:	
Participants were administered intravenous infusion of ANX005 on Day 1 and Day 8.	

Primary: Number of Participants with Treatment-emergent Adverse Events (TEAEs)

End point title	Number of Participants with Treatment-emergent Adverse Events (TEAEs)[1]
End point description:	
An adverse event (AE) was any untoward medical occurrence in a participant who had been administered a pharmaceutical product. An AE did not necessarily have a causal relationship with the product and therefore could be any unfavorable and unintended sign (including an abnormal laboratory finding), symptom, or disease temporally associated with the use of a pharmaceutical product. An AE could arise with any use, route of administration, formulation, dose (including an overdose), or when used in combination with another pharmaceutical product. A TEAE was an AE with an onset date/time after the first infusion of ANX005 until the end of the study. A summary of serious and all other non-serious adverse events regardless of causality is located in the Adverse Events module. Safety Population: all participants who received any amount of ANX005.	
End point type	Primary
End point timeframe:	
Day 1 through Day 71	

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: The analysis was descriptive in nature.

End point values	ANX005			
Subject group type	Reporting group			
Number of subjects analysed	6			
Units: participants				
number (not applicable)	6			

Statistical analyses

No statistical analyses for this end point

Primary: Maximum Change from Baseline in Hemoglobin Levels

End point title	Maximum Change from Baseline in Hemoglobin Levels[2]
End point description:	
Maximum change from Baseline was calculated as the maximum post-Baseline value observed up to Day 71 minus the Baseline value. Baseline was defined as the last non-missing observation recorded before the first dose of ANX005. Safety Population: all participants who received any amount of ANX005.	
End point type	Primary
End point timeframe:	
Baseline up to Day 71	

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: The analysis was descriptive in nature.

End point values	ANX005			
Subject group type	Reporting group			
Number of subjects analysed	6			
Units: grams/deciliters (dL)				
arithmetic mean (standard deviation)				
Baseline	9.03 (± 0.653)			
Maximum Change from Baseline	1.30 (± 0.846)			

Statistical analyses

No statistical analyses for this end point

Primary: Change from Baseline in Lactate Dehydrogenase Levels at Day 71

End point title	Change from Baseline in Lactate Dehydrogenase Levels at Day 71[3]

End point description:

Change from Baseline was calculated as the post-Baseline value at Day 71 minus the Baseline value. Baseline was defined as the last non-missing observation recorded before the first dose of ANX005.
Safety Population: all participants who received any amount of ANX005.

End point type	Primary

End point timeframe:

Baseline, Day 71

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: The analysis was descriptive in nature.

End point values	ANX005			
Subject group type	Reporting group			
Number of subjects analysed	6			
Units: units per liter (L)				
arithmetic mean (standard deviation)				
Baseline	339.8 (± 84.88)			
Change from Baseline	7.8 (± 70.02)			

Statistical analyses

No statistical analyses for this end point

Primary: Change from Baseline in Percentage of Reticulocytes/Total Cells Count at Day 71

End point title	Change from Baseline in Percentage of Reticulocytes/Total Cells

	Count at Day 71[4]

End point description:

Change from Baseline was calculated as the post-Baseline value at Day 71 minus the Baseline value. Baseline was defined as the last non-missing observation recorded before the first dose of ANX005. Safety Population: all participants who received any amount of ANX005.

End point type	Primary

End point timeframe:

Baseline, Day 71

Notes:

[4] - 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: The analysis was descriptive in nature.

End point values	ANX005			
Subject group type	Reporting group			
Number of subjects analysed	6			
Units: percentage of reticulocytes/total cells				
arithmetic mean (standard deviation)				
Baseline	6.58 (± 4.706)			
Change from Baseline	0.77 (± 1.607)			

Statistical analyses

No statistical analyses for this end point

Primary: Change from Baseline in Haptoglobin Levels at Day 71

End point title	Change from Baseline in Haptoglobin Levels at Day 71[5]

End point description:

Change from Baseline was calculated as the post-Baseline value at Day 71 minus the Baseline value. Baseline was defined as the last non-missing observation recorded before the first dose of ANX005. Safety Population: all participants who received any amount of ANX005.

End point type	Primary

End point timeframe:

Baseline, Day 71

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: The analysis was descriptive in nature.

End point values	ANX005			
Subject group type	Reporting group			
Number of subjects analysed	6			
Units: milligrams (mg)/dL				
arithmetic mean (standard deviation)				
Baseline	9.0 (± 14.21)			
Change from Baseline	1.0 (± 8.99)			

Statistical analyses

No statistical analyses for this end point

Primary: Change from Baseline in Total Bilirubin Levels at Day 71

End point title	Change from Baseline in Total Bilirubin Levels at Day 71[6]

End point description:

Change from Baseline was calculated as the post-Baseline value at Day 71 minus the Baseline value. Baseline was defined as the last non-missing observation recorded before the first dose of ANX005. Safety Population: all participants who received any amount of ANX005.

End point type	Primary

End point timeframe:

Baseline, Day 71

Notes:

[6] - 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: The analysis was descriptive in nature.

End point values	ANX005			
Subject group type	Reporting group			
Number of subjects analysed	6			
Units: micromole (µmol)/L				
arithmetic mean (standard deviation)				
Baseline	34.43 (± 22.848)			
Change from baseline	8.55 (± 18.940)			

Statistical analyses

No statistical analyses for this end point

Primary: Change from Baseline in Indirect Bilirubin Levels at Day 71

End point title	Change from Baseline in Indirect Bilirubin Levels at Day 71[7]

End point description:

Change from Baseline was calculated as the post-Baseline value at Day 71 minus the Baseline value. Baseline was defined as the last non-missing observation recorded before the first dose of ANX005. Safety Population: all participants who received any amount of ANX005.

End point type	Primary

End point timeframe:

Baseline, Day 71

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: The analysis was descriptive in nature.

End point values	ANX005			
Subject group type	Reporting group			
Number of subjects analysed	6			
Units: µmol/L				
arithmetic mean (standard deviation)				
Baseline	17.22 (± 12.008)			
Change from Baseline	4.75 (± 11.951)			

Statistical analyses

No statistical analyses for this end point

Secondary: Change in Percent Inhibition Complement CH50 from Baseline Through Day 71

End point title	Change in Percent Inhibition Complement CH50 from Baseline Through Day 71

End point description:

Change in percent inhibition complement CH50 from Baseline was calculated as the post-Baseline value minus the Baseline value. Baseline was defined as the last non-missing observation recorded before the first dose of ANX005. A decrease from baseline indicated a better outcome.
Safety Population: all participants who received any amount of ANX005. 'Number analyzed' = participants evaluable at specified timepoint.
Baseline: n=5; Days 2, 4, 8, 15, 22, 36, 43, 50, and 71: n=4; Days 29 and 57: n=3

End point type	Secondary

End point timeframe:

Baseline, Days 2, 4, 8, 15, 22, 29, 36, 43, 50, 57, and 71

End point values	ANX005			
Subject group type	Reporting group			
Number of subjects analysed	5			
Units: activity percent				
arithmetic mean (standard deviation)				
Baseline	27.38 (± 11.481)			
Change from Baseline: Day 2	-12.50 (± 11.747)			
Change from Baseline: Day 4	-12.50 (± 11.747)			
Change from Baseline: Day 8	-12.50 (± 11.747)			
Change from Baseline: Day 15	-12.50 (± 11.747)			
Change from Baseline: Day 22	-12.50 (± 11.747)			
Change from Baseline: Day 29	-11.43 (± 10.722)			
Change from Baseline: Day 36	-0.13 (± 11.777)			

Change from Baseline: Day 43	4.95 (± 14.850)			
Change from Baseline: Day 50	3.20 (± 16.530)			
Change from Baseline: Day 57	-5.27 (± 5.154)			
Change from Baseline: Day 71	5.85 (± 19.298)			

Statistical analyses

No statistical analyses for this end point

Secondary: Change from Baseline in Complement C4 Level through Day 71

End point title	Change from Baseline in Complement C4 Level through Day 71

End point description:

Change from Baseline was calculated as the post-Baseline value minus the Baseline value. Baseline was defined as the last non-missing observation recorded before the first dose of ANX005.
Safety Population: all participants who received any amount of ANX005. 'Number analyzed' = participants evaluable at specified timepoint.
Baseline and Days 4, 8 (predose), 15, 22, 50, Day 71: n=6; Days 2, 8 (end of infusion), 29, 36, and 43: n=5; Day 57: n=4

End point type	Secondary

End point timeframe:

Baseline, Days 2, 4, 8 (pre-dose and end of infusion), 15, 22, 29, 36, 43, 50, 57, and 71

End point values	ANX005			
Subject group type	Reporting group			
Number of subjects analysed	6			
Units: mg/dL				
arithmetic mean (standard deviation)				
Baseline	9.85 (± 8.704)			
Change from Baseline: Day 2 End of Infusion	-6.38 (± 8.968)			
Change from Baseline: Day 4	0.00 (± 9.036)			
Change from Baseline: Day 8 Pre-dose	-0.47 (± 8.214)			
Change from Baseline: Day 8 End of Infusion	-1.54 (± 9.327)			
Change from Baseline: Day 15	0.52 (± 9.383)			
Change from Baseline: Day 22	0.25 (± 8.993)			
Change from Baseline: Day 29	4.42 (± 7.669)			
Change from Baseline: Day 36	-1.16 (± 5.809)			
Change from Baseline: Day 43	1.26 (± 2.740)			
Change from Baseline: Day 50	-0.38 (± 1.708)			
Change from Baseline: Day 57	-2.00 (± 2.012)			
Change from Baseline: Day 71	-0.07 (± 4.507)			

Statistical analyses

No statistical analyses for this end point

Secondary: Change from Baseline in Complement C1q Level through Day 71

End point title	Change from Baseline in Complement C1q Level through Day 71

End point description:

Change from Baseline was calculated as the post-Baseline value minus the Baseline value. Baseline was defined as the last non-missing observation recorded before the first dose of ANX005.
Safety Population: all participants who received any amount of ANX005. 'Number analyzed' = participants evaluable at specified timepoint.
Baseline, Day 4, 8 (pre-dose), 15, 22,: n=6; Days 2 (end of infusion), 2 (4 hours after infusion), 8 (end of infusion), 8 (4 hours after Infusion), 29, 36, 43: n =5; and Days 50, 57, and 71: n=4

End point type	Secondary

End point timeframe:

Baseline, Days 2 (4 hours [hr] after Infusion and end of infusion), 4, 8 (pre-dose, 4 hr after Infusion, and end of infusion), 15, 22, 29, 36, 43, 50, 57, and 71

End point values	ANX005			
Subject group type	Reporting group			
Number of subjects analysed	6			
Units: nanograms/milliliters				
arithmetic mean (standard deviation)				
Baseline	125906.7 (± 83730.04)			
Change from Baseline: Day 2 (End of Infusion)	-123406.7 (± 83730.04)			
Change from Baseline: Day 2 (4 hr after Infusion)	-92144.0 (± 25572.09)			
Change from Baseline: Day 4	-120863.3 (± 86782.71)			
Change from Baseline: Day 8 (Pre-dose)	-114658.3 (± 95534.57)			
Change from Baseline: Day 8 (End of Infusion)	-139190.0 (± 83036.43)			
Change from Baseline: Day 8 (4 hr after Infusion)	-139190.0 (± 83036.43)			
Change from Baseline: Day 15	-113278.3 (± 97696.09)			
Change from Baseline: Day 22	-108186.7 (± 103427.02)			
Change from Baseline: Day 29	-73786.0 (± 82530.85)			
Change from Baseline: Day 36	-51298.0 (± 43444.46)			
Change from Baseline: Day 43	-29952.0 (± 47280.34)			

Change from Baseline: Day 50	-4525.0 (± 18893.85)			
Change from Baseline: Day 57	6447.5 (± 34873.98)			
Change from Baseline: Day 71	25240.0 (± 44201.47)			

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information	
Timeframe for reporting adverse events:	
Day 1 through Day 71	
Adverse event reporting additional description:	
Safety Population: all participants who received any amount of ANX005.	
Assessment type	Systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	24.1

Reporting groups	
Reporting group title	ANX005
Reporting group description:	
Participants were administered intravenous infusion of ANX005 on Day 1 and Day 8.	

Serious adverse events	ANX005		
Total subjects affected by serious adverse events			
subjects affected / exposed	1 / 6 (16.67%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events			
Blood and lymphatic system disorders			
Haemolytic anaemia			
subjects affected / exposed	1 / 6 (16.67%)		
occurrences causally related to treatment / all	0 / 2		
deaths causally related to treatment / all	0 / 0		

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

Non-serious adverse events	ANX005		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	6 / 6 (100.00%)		
Nervous system disorders			
Headache			
subjects affected / exposed	1 / 6 (16.67%)		
occurrences (all)	1		
Blood and lymphatic system disorders			
Anaemia			

subjects affected / exposed occurrences (all) Warm type haemolytic anaemia subjects affected / exposed occurrences (all)	2 / 6 (33.33%) 2 1 / 6 (16.67%) 1		
General disorders and administration site conditions Oedema peripheral subjects affected / exposed occurrences (all) Face oedema subjects affected / exposed occurrences (all) Pyrexia subjects affected / exposed occurrences (all)	 2 / 6 (33.33%) 2 1 / 6 (16.67%) 1 1 / 6 (16.67%) 1		
Immune system disorders Cytokine release syndrome subjects affected / exposed occurrences (all)	 1 / 6 (16.67%) 1		
Ear and labyrinth disorders Vertigo positional subjects affected / exposed occurrences (all)	 1 / 6 (16.67%) 1		
Gastrointestinal disorders Hypoaesthesia oral subjects affected / exposed occurrences (all) Diarrhea subjects affected / exposed occurrences (all)	 1 / 6 (16.67%) 1 1 / 6 (16.67%) 1		
Respiratory, thoracic and mediastinal disorders Dry throat subjects affected / exposed occurrences (all)	 1 / 6 (16.67%) 1		
Skin and subcutaneous tissue disorders			

Rash subjects affected / exposed occurrences (all) Rash erythematous subjects affected / exposed occurrences (all) Rash maculo-papular subjects affected / exposed occurrences (all)	 1 / 6 (16.67%) 1 1 / 6 (16.67%) 1 1 / 6 (16.67%) 1		
Musculoskeletal and connective tissue disorders Arthralgia subjects affected / exposed occurrences (all)	 1 / 6 (16.67%) 1		
Infections and infestations COVID-19 subjects affected / exposed occurrences (all)	 1 / 6 (16.67%) 1		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
06 May 2021	Amendment 1, protocol version 2.0
23 March 2022	Amendment 2, protocol version 3.0

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

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

None reported

Notes: