Clinical trial results:
A Phase 2a Proof-of-Mechanism, Open-Label Study to Determine the Effect of ACH-0144471 on C3 Levels in Participants With Low C3 Levels Due to Either C3 Glomerulopathy (C3G) or Immune-Complex Membranoproliferative Glomerulonephritis (IC-MPGN)

Summary

EudraCT number	2016-003525-42
Trial protocol	BE NL
Global end of trial date	09 January 2019

Results information

Result version number	v1 (current)
This version publication date	07 July 2021
First version publication date	07 July 2021

Trial information

Trial identification

Sponsor protocol code	ACH471-201

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT03124368
WHO universal trial number (UTN)	U1111-1203-9016

Notes:

Sponsors

Sponsor organisation name	Alexion Pharmaceuticals, Inc
Sponsor organisation address	121 Seaport Boulevard, Boston, MA, United States, 02210
Public contact	European Clinical Trial Information, Alexion Pharmaceuticals, Inc., +33 147100606, clinicaltrials.eu@alexion.com
Scientific contact	European Clinical Trial Information, Alexion Pharmaceuticals, Inc., +33 147100606, clinicaltrials.eu@alexion.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	09 January 2019
Is this the analysis of the primary completion data?	Yes
Primary completion date	21 December 2018
Global end of trial reached?	Yes
Global end of trial date	09 January 2019
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The primary objective of this study was to determine whether ACH-0144471 (danicopan) increases blood C3 complement protein (C3) levels in participants with low C3 levels due to either C3G or IC-MPGN.

Protection of trial subjects:

This study was conducted in accordance with International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (ICH) Good Clinical Practice, and the principles of the Declaration of Helsinki, in addition to following the laws and regulations of the country or countries in which a study is conducted.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	11 July 2017
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	Netherlands: 1
Country: Number of subjects enrolled	Belgium: 1
Country: Number of subjects enrolled	Australia: 4
Worldwide total number of subjects	6
EEA total number of subjects	2

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	6

From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

Participants were recruited from 5 study centers total in Australia, Belgium, and The Netherlands. Only 3 study centers, 1 in each country, treated participants.

Period 1

Period 1 title	Overall (overall period)
Is this the baseline period?	Yes
Allocation method	Non-randomised - controlled
Blinding used	Not blinded

Arms

Are arms mutually exclusive?	Yes
Arm title	Group 1: Danicopan 100 mg TID (Sentinel)

Arm description:

Participants received 100 milligrams (mg) of danicopan three times daily (TID) during the Treatment Period.

Arm type	Experimental
Investigational medicinal product name	Danicopan
Investigational medicinal product code	
Other name	ACH-0144471, ACH-4471, ACH4471, 4471, ALXN2040
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

Participants received study drug for 14 days (Treatment Period), followed by a taper over the next 7 days (Taper Period).

Arm title	Group 2: Danicopan up to 200 mg TID

Arm description:

Participants received not more than 200 mg of danicopan TID during the Treatment Period.

Arm type	Experimental
Investigational medicinal product name	Danicopan
Investigational medicinal product code	
Other name	ACH-0144471, ACH-4471, ACH4471, 4471, ALXN2040
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

Participants received study drug for 14 days (Treatment Period), followed by a taper over the next 7 days (Taper Period).

Number of subjects in period 1	Group 1: Danicopan 100 mg TID (Sentinel)	Group 2: Danicopan up to 200 mg TID
Started	2	4
Received At Least 1 Dose Of Study Drug	2	4
Completed	2	4

Baseline characteristics

Reporting groups	
Reporting group title	Group 1: Danicopan 100 mg TID (Sentinel)
Reporting group description:	
Participants received 100 milligrams (mg) of danicopan three times daily (TID) during the Treatment Period.	
Reporting group title	Group 2: Danicopan up to 200 mg TID
Reporting group description:	
Participants received not more than 200 mg of danicopan TID during the Treatment Period.	

Reporting group values	Group 1: Danicopan 100 mg TID (Sentinel)	Group 2: Danicopan up to 200 mg TID	Total
Number of subjects	2	4	6
Age categorical Units: Subjects			
In utero	0	0	0
Preterm newborn infants (gestational age < 37 wks)	0	0	0
Newborns (0-27 days)	0	0	0
Infants and toddlers (28 days-23 months)	0	0	0
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0
Adults (18-64 years)	2	4	6
From 65-84 years	0	0	0
85 years and over	0	0	0
Age continuous Units: years			
arithmetic mean	25.50	30.00	
standard deviation	± 7.85	± 12.68	-
Gender categorical Units: Subjects			
Female	0	1	1
Male	2	3	5
Race Units: Subjects			
American Indian or Alaska Native	0	0	0
Asian	2	1	3
Native Hawaiian or Other Pacific Islander	0	0	0
Black or African American	0	0	0
White	0	3	3
More than one race	0	0	0
Unknown or Not Reported	0	0	0

End points

End points reporting groups

Reporting group title	Group 1: Danicopan 100 mg TID (Sentinel)
Reporting group description:	
Participants received 100 milligrams (mg) of danicopan three times daily (TID) during the Treatment Period.	
Reporting group title	Group 2: Danicopan up to 200 mg TID
Reporting group description:	
Participants received not more than 200 mg of danicopan TID during the Treatment Period.	
Subject analysis set title	Total
Subject analysis set type	Full analysis
Subject analysis set description:	
All participants who received at least 1 dose of ALXN2040.	
Subject analysis set title	Group 1: Danicopan 100 mg TID
Subject analysis set type	Sub-group analysis
Subject analysis set description:	
Participants received 100 mg of danicopan TID during the Treatment Period.	
Subject analysis set title	Group 2: Danicopan 150 mg TID
Subject analysis set type	Sub-group analysis
Subject analysis set description:	
Participants received 150 mg of danicopan TID during the Treatment Period.	
Subject analysis set title	Group 2: Danicopan 200 mg TID
Subject analysis set type	Sub-group analysis
Subject analysis set description:	
Participants received 200 mg of danicopan TID during the Treatment Period.	

Primary: Change From Baseline In Serum C3 Complement Protein (C3) Levels On Day 15

End point title	Change From Baseline In Serum C3 Complement Protein (C3) Levels On Day 15[1]
End point description:	
Serum C3 levels were measured by conventional Roche immunoturbidimetric assay method. Change from Baseline = Serum C3 levels on Day 15 - Baseline Serum C3 levels.	
End point type	Primary
End point timeframe:	
Baseline, Day 15	

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: Quantitative statistical analysis was not performed for this end point, per protocol. Descriptive statistics are included (mean and standard deviation).

End point values	Group 1: Danicopan 100 mg TID (Sentinel)	Group 2: Danicopan up to 200 mg TID	Total	
Subject group type	Reporting group	Reporting group	Subject analysis set	
Number of subjects analysed	2	4	6	
Units: g/L				
arithmetic mean (standard deviation)				
Baseline	0.32 (± 0.060)	0.56 (± 0.230)	0.48 (± 0.220)	
Day 15	0.35 (± 0.060)	0.70 (± 0.350)	0.58 (± 0.330)	

Change from Baseline	0.03 (± 0.000)	0.14 (± 0.140)	0.11 (± 0.120)	

Statistical analyses

No statistical analyses for this end point

Primary: Change From Baseline In Plasma Intact C3 Level On Day 15

End point title	Change From Baseline In Plasma Intact C3 Level On Day 15[2]

End point description:

Plasma Intact C3 level were measured by a novel multiplex assay method. Change from Baseline = Plasma Intact C3 levels on Day 15 - Baseline Plasma Intact C3 levels.

End point type	Primary

End point timeframe:

Baseline, Day 15

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: Quantitative statistical analysis was not performed for this end point, per protocol. Descriptive statistics are included (mean and standard deviation).

End point values	Group 1: Danicopan 100 mg TID (Sentinel)	Group 2: Danicopan up to 200 mg TID	Total	
Subject group type	Reporting group	Reporting group	Subject analysis set	
Number of subjects analysed	2	4	6	
Units: µg/mL				
arithmetic mean (standard deviation)				
Baseline	39.50 (± 0.710)	58.25 (± 47.910)	52.00 (± 38.360)	
Day 15	54.30 (± 17.390)	33.50 (± 9.040)	40.43 (± 15.000)	
Change from Baseline	14.80 (± 18.100)	-24.75 (± 50.970)	-11.57 (± 45.180)	

Statistical analyses

No statistical analyses for this end point

Secondary: Change From Baseline In Total Complement Classical Pathway (CP) Activity On Day 14

End point title	Change From Baseline In Total Complement Classical Pathway (CP) Activity On Day 14

End point description:

Serum CP activity was measured by a functional immunoassay method.
Change from Baseline = Total Complement CP Activity on Day 14 - Baseline Total Complement CP Activity

End point type	Secondary

End point timeframe:

Baseline, Day 14

End point values	Group 1: Danicopan 100 mg TID (Sentinel)	Group 2: Danicopan up to 200 mg TID	Total	
Subject group type	Reporting group	Reporting group	Subject analysis set	
Number of subjects analysed	2	4	6	
Units: CAE Unit				
arithmetic mean (standard deviation)				
Baseline	31.00 (± 21.210)	91.00 (± 41.370)	71.00 (± 45.570)	
Day 14	41.50 (± 23.330)	96.75 (± 23.680)	78.33 (± 35.490)	
Change from Baseline	10.50 (± 2.120)	5.75 (± 34.250)	7.33 (± 26.660)	

Statistical analyses

No statistical analyses for this end point

Secondary: Change From Baseline In Total Complement Alternative Pathway (AP) Functional Activity (AP Wieslab) On Day 15

End point title	Change From Baseline In Total Complement Alternative Pathway (AP) Functional Activity (AP Wieslab) On Day 15

End point description:

Serum AP functional activity was measured by the Wieslab functional immunoassay method. Change from Baseline = Total Complement AP Functional Activity on Day 15 - Baseline Total Complement AP Functional Activity

End point type	Secondary

End point timeframe:

Baseline, Day 15

End point values	Group 1: Danicopan 100 mg TID (Sentinel)	Group 2: Danicopan up to 200 mg TID	Total	
Subject group type	Reporting group	Reporting group	Subject analysis set	
Number of subjects analysed	2	4	6	
Units: percentage				
arithmetic mean (standard deviation)				
Baseline	8.350 (± 10.508)	31.073 (± 19.779)	23.498 (± 19.862)	
Day 15	1.635 (± 2.3122)	0.993 (± 1.1101)	1.207 (± 1.3852)	
Change from Baseline	-6.715 (± 8.1954)	-30.08 (± 19.176)	-22.29 (± 19.484)	

Statistical analyses

No statistical analyses for this end point

Secondary: Time To Achieving Peak Serum C3 Levels

End point title	Time To Achieving Peak Serum C3 Levels

End point description:

End point type	Secondary

End point timeframe:

From The First Day Of Dosing through Day 14

End point values	Group 1: Danicopan 100 mg TID (Sentinel)	Group 2: Danicopan up to 200 mg TID	Total	
Subject group type	Reporting group	Reporting group	Subject analysis set	
Number of subjects analysed	2	4	6	
Units: days				
arithmetic mean (standard deviation)	2.5 (± 2.12)	10.5 (± 4.43)	7.8 (± 5.46)	

Statistical analyses

No statistical analyses for this end point

Secondary: Serious Adverse Events (SAEs), Grade 3 And Grade 4 Treatment-emergent Adverse Events (TEAEs), And Adverse Events (AEs) Leading To Discontinuation

End point title	Serious Adverse Events (SAEs), Grade 3 And Grade 4 Treatment-emergent Adverse Events (TEAEs), And Adverse Events (AEs) Leading To Discontinuation

End point description:

An AE was as any untoward medical occurrence associated with the use of a drug in humans, whether or not considered drug related. An SAE was an AE that met at least 1 of the following criteria: resulted in death, was life-threatening, required inpatient hospitalization or prolongation of existing hospitalization for the AE, persistent or significant disability/incapacity or substantial disruption of the ability to conduct normal life functions, congenital anomaly/birth defect (in the child of a participant who was exposed to the study drug), important medical event or reaction. The intensity of an AE was graded according to the Common Terminology Criteria for Adverse Events (CTCAE) Adverse Event Severity Grading Table. A summary of SAEs and other non-serious AEs regardless of causality is located in the Reported Adverse Events module.

End point type	Secondary

End point timeframe:

Up to Day 49

End point values	Group 1: Danicopan 100 mg TID (Sentinel)	Group 2: Danicopan up to 200 mg TID	Total	
Subject group type	Reporting group	Reporting group	Subject analysis set	
Number of subjects analysed	2	4	6	
Units: Participants				
TEAEs	2	3	5	
SAEs	0	1	1	
TEAEs ≥Grade 3	0	0	0	
TEAEs leading to discontinuation	0	0	0	

Statistical analyses

No statistical analyses for this end point

Secondary: Pharmacokinetics (PK): Area Under The Plasma Concentration-time Curve From Time Of Administration To 8 Hours Postdose (AUC0-8)

End point title	Pharmacokinetics (PK): Area Under The Plasma Concentration-time Curve From Time Of Administration To 8 Hours Postdose (AUC0-8)

End point description:

Serial blood samples were collected predose and up to 8 hours postdose on Days 1 and 7.

End point type	Secondary

End point timeframe:

Days 1 and 7

End point values	Group 1: Danicopan 100 mg TID	Group 2: Danicopan 150 mg TID	Group 2: Danicopan 200 mg TID	
Subject group type	Subject analysis set	Subject analysis set	Subject analysis set	
Number of subjects analysed	2	1	3	
Units: h*ng/mL				
geometric mean (geometric coefficient of variation)				
Day 1	871 (± 38.1)	2060 (± 0)	1640 (± 42.8)	
Day 7	1120 (± 44.4)	2470 (± 0)	1760 (± 24.2)	

Statistical analyses

No statistical analyses for this end point

Secondary: PK: Maximum Plasma Concentration (Cmax)

End point title	PK: Maximum Plasma Concentration (Cmax)

End point description:

Serial blood samples were collected predose and up to 8 hours postdose on Days 1 and 7.

End point type	Secondary

End point timeframe:

Days 1 and 7

End point values	Group 1: Danicopan 100 mg TID	Group 2: Danicopan 150 mg TID	Group 2: Danicopan 200 mg TID	
Subject group type	Subject analysis set	Subject analysis set	Subject analysis set	
Number of subjects analysed	2	1	3	
Units: ng/mL				
geometric mean (geometric coefficient of variation)				
Day 1	199 (± 6.75)	563 (± 0)	427 (± 46.3)	
Day 7	270 (± 41.2)	579 (± 0)	385 (± 39.1)	

Statistical analyses

No statistical analyses for this end point

Secondary: PK: Time To Maximum Concentration (Tmax)

End point title	PK: Time To Maximum Concentration (Tmax)

End point description:

Serial blood samples were collected predose and up to 8 hours postdose on Days 1 and 7.

End point type	Secondary

End point timeframe:

Days 1 and 7

End point values	Group 1: Danicopan 100 mg TID	Group 2: Danicopan 150 mg TID	Group 2: Danicopan 200 mg TID	
Subject group type	Subject analysis set	Subject analysis set	Subject analysis set	
Number of subjects analysed	2	1	3	
Units: hours				
median (full range (min-max))				
Day 1	1.00 (1.00 to 1.00)	2.50 (2.50 to 2.50)	2.00 (1.50 to 2.00)	
Day 7	2.75 (1.50 to 4.00)	2.50 (2.50 to 2.50)	1.50 (1.00 to 4.00)	

Statistical analyses

No statistical analyses for this end point

Secondary: Change From Baseline In Bb Fragment Of Complement Factor B (Bb) At Day 15

End point title	Change From Baseline In Bb Fragment Of Complement Factor B (Bb) At Day 15

End point description:

Plasma Bb was measured by enzyme-linked immunosorbent assay (ELISA).
Change from Baseline = Complement Bb on Day 15 - Baseline

End point type	Secondary

End point timeframe:

Baseline, Day 15

End point values	Group 1: Danicopan 100 mg TID (Sentinel)	Group 2: Danicopan up to 200 mg TID	Total	
Subject group type	Reporting group	Reporting group	Subject analysis set	
Number of subjects analysed	2	4	6	
Units: µg/mL				
arithmetic mean (standard deviation)				
Baseline	1.786 (± 1.2116)	1.229 (± 0.4729)	1.416 (± 0.7152)	
Day 15	1.511 (± 0.9781)	0.622 (± 0.3349)	0.918 (± 0.6854)	
Change from baseline	-0.278 (± 0.2335)	-0.607 (± 0.1790)	-0.497 (± 0.2430)	

Statistical analyses

No statistical analyses for this end point

Secondary: Change From Baseline In Soluble Terminal Complement Complex (sC5b-9) At Day 15

End point title	Change From Baseline In Soluble Terminal Complement Complex (sC5b-9) At Day 15

End point description:

Plasma sC5b-9 was measured by ELISA.
Change from Baseline = sC5b-9 on Day 15 - Baseline sC5b-9

End point type	Secondary

End point timeframe:

Baseline, Day 15

End point values	Group 1: Danicopan 100 mg TID (Sentinel)	Group 2: Danicopan up to 200 mg TID	Total	
Subject group type	Reporting group	Reporting group	Subject analysis set	
Number of subjects analysed	2	4	6	
Units: ng/mL				
arithmetic mean (standard deviation)				
Baseline	1002.0 (± 684.4794)	613.750 (± 225.2397)	743.167 (± 405.3874)	
Day 15	1105.5 (± 622.9611)	563.850 (± 302.4446)	744.400 (± 459.0596)	
Change from Baseline	103.500 (± 61.5183)	-49.900 (± 237.1917)	1.233 (± 201.9602)	

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information	
Timeframe for reporting adverse events:	
After the first dose of study medication (following Day 0) through the follow-up visit at Day 49.	
Assessment type	Systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	12.1

Reporting groups	
Reporting group title	Group 1: Danicopan 100 mg TID (Sentinel)
Reporting group description:	
Participants received 100 mg of danicopan TID during the Treatment Period.	
Reporting group title	Group 2: Danicopan up to 200 mg TID
Reporting group description:	
Participants received not more than 200 mg of danicopan TID during the Treatment Period.	

Serious adverse events	Group 1: Danicopan 100 mg TID (Sentinel)	Group 2: Danicopan up to 200 mg TID	
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 2 (0.00%)	1 / 4 (25.00%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events			
Nervous system disorders			
Presyncope			
subjects affected / exposed	0 / 2 (0.00%)	1 / 4 (25.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	

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

Non-serious adverse events	Group 1: Danicopan 100 mg TID (Sentinel)	Group 2: Danicopan up to 200 mg TID	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	2 / 2 (100.00%)	3 / 4 (75.00%)	
Vascular disorders			
Hypotension			
alternative dictionary used: MedDRA 20.0			

subjects affected / exposed	0 / 2 (0.00%)	1 / 4 (25.00%)	
occurrences (all)	0	1	
Nervous system disorders			
Dizziness			
alternative dictionary used: MedDRA 20.0			
subjects affected / exposed	1 / 2 (50.00%)	0 / 4 (0.00%)	
occurrences (all)	2	0	
Headache			
alternative dictionary used: MedDRA 20.0			
subjects affected / exposed	0 / 2 (0.00%)	1 / 4 (25.00%)	
occurrences (all)	0	1	
Blood and lymphatic system disorders			
Anaemia			
subjects affected / exposed	1 / 2 (50.00%)	1 / 4 (25.00%)	
occurrences (all)	1	1	
General disorders and administration site conditions			
Crepitations			
alternative dictionary used: MedDRA 20.0			
subjects affected / exposed	0 / 2 (0.00%)	1 / 4 (25.00%)	
occurrences (all)	0	1	
Pain			
alternative dictionary used: MedDRA 20.0			
subjects affected / exposed	0 / 2 (0.00%)	1 / 4 (25.00%)	
occurrences (all)	0	1	
Gastrointestinal disorders			
Diarrhoea			
alternative dictionary used: MedDRA 20.0			
subjects affected / exposed	1 / 2 (50.00%)	0 / 4 (0.00%)	
occurrences (all)	1	0	
Renal and urinary disorders			
Prerenal failure			
alternative dictionary used: MedDRA 20.0			
subjects affected / exposed	0 / 2 (0.00%)	1 / 4 (25.00%)	
occurrences (all)	0	1	
Infections and infestations			

Upper respiratory tract infection alternative dictionary used: MedDRA 20.0 subjects affected / exposed occurrences (all)	 1 / 2 (50.00%) 1	 0 / 4 (0.00%) 0	
Metabolism and nutrition disorders Hyperkalaemia alternative dictionary used: MedDRA 20.0 subjects affected / exposed occurrences (all)	 0 / 2 (0.00%) 0	 1 / 4 (25.00%) 1	
Hypokalaemia alternative dictionary used: MedDRA 20.0 subjects affected / exposed occurrences (all)	 1 / 2 (50.00%) 1	 0 / 4 (0.00%) 0	

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
07 April 2017	• Dose was increased based on current PK modeling and clinical safety in healthy volunteers. In Group 1, participants were given 100 mg TID instead of 75 mg TID. For Group 2, the maximum dose was changed from 125 mg TID to 150 mg TID. • Circumstances under which an early dosing taper would be initiated were modified. Two consecutive C3 levels >125% upper limit of normal (ULN) or >3× a participant's baseline value and greater than or equal to the lower limit of normal triggered initiation of the taper period, rather than >125% ULN after 7 days. • Potential long-term follow-up visits were added to allow collection of longitudinal observational data. Participants were asked, but not required, to visit the clinic every 45 days for up to 1 year. • AE definitions were clarified. • Grading of AEs was changes from Division of AIDS criteria to CTCAE. • The phase of the study was changed from 1b to 2a.
09 June 2017	• Dose levels were updated based on current PK modeling and clinical safety in healthy volunteers. The maximum dose level for Group 2 was changed from 150 mg to 200 mg TID. • The eGFR calculation method was revised. The Modified Diet for Renal Disease equation was used for participants ≥18 years of age, and the Schwartz equation was used for participants <18 years of age. • Blood volumes for clinical laboratory tests were updated to include blood drawn at the optional long-term follow-up visits. • AE definitions were further clarified. • The previous human experience was updated.

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.

Sample size was based on very limited clinical cases of C3G and IC-MPGN.
Plasma intact C3 values should be regarded with caution as they were generated using a new multiplex assay method with limited historical experience and unexplained variation.

Notes: