Clinical trial results:
To test in a prospective double blind placebo controlled crossover trial if 24 weeks of Ursodeoxycholic acid Treatment in combination with established standard treatment for diabetic nephropathy significantly reduces albuminuria as compared to placebo in patients with T1DM and residual macroalbuminuria despite optimal RAAS blockade

Summary

EudraCT number	2015-003609-41
Trial protocol	GB
Global end of trial date	06 July 2023

Results information

Result version number	v1 (current)
This version publication date	07 August 2025
First version publication date	07 August 2025
Summary attachment (see zip file)	CSR (UREDIA CSR (Signed) - 12Feb2025.pdf)

Trial information

Trial identification

Sponsor protocol code	UREDIA (2015-003609-41)

Additional study identifiers

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

Notes:

Sponsors

Sponsor organisation name	King's College London
Sponsor organisation address	The Strand, London, United Kingdom, WC2R 2LS
Public contact	Dr Janaka Karalliedde, King's College London, 44 02078484297, j.karalliedde@kcl.ac.uk
Scientific contact	Dr Janaka Karalliedde, King's College London, 44 02078484297, j.karalliedde@kcl.ac.uk
Sponsor organisation name	Guy's and St Thomas NHS Foundation Trust
Sponsor organisation address	Great Maze Pond, London, United Kingdom, SE1 9RT
Public contact	Dr Janaka Karalliedde, Guy's and St Thomas' NHS Foundation Trust, 44 02078484297, j.karalliedde@kcl.ac.uk
Scientific contact	Dr Janaka Karalliedde, Guy's and St Thomas' NHS Foundation Trust, 44 02078484297, j.karalliedde@kcl.ac.uk

Notes:

Paediatric regulatory details

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

Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	No

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	14 November 2024
Is this the analysis of the primary completion data?	Yes
Primary completion date	06 July 2023
Global end of trial reached?	Yes
Global end of trial date	06 July 2023
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To evaluate if Ursodeoxycholic acid reduces albuminuria in patients with type 1 diabetes mellitus (T1DM) with residual albuminuria despite established standard care.

Protection of trial subjects:

If at any time the (pregnancy) test does not come back negative (that is, it demonstrates that patient is pregnant), the patient will be withdrawn from participation in the study. Patients are free to withdraw from study treatment or from study at any time for any reason. Information collected during the trial may still be used. If patients decide to withdraw at any time they will be asked for consent to use all of the data collected up to the time they decided to leave the study. We will also ask for patient consent to use all the frozen blood samples which had not been analysed until withdrawal from the trial

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	31 March 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	United Kingdom: 31
Worldwide total number of subjects	31
EEA total number of subjects	31

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	0

months)	
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	25
From 65 to 84 years	6
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details: -

Pre-assignment period milestones

Number of subjects started	45[1]
Number of subjects completed	31

Pre-assignment subject non-completion reasons

Reason: Number of subjects	Patient not eligible: 10
Reason: Number of subjects	Consent withdrawn by subject: 3
Reason: Number of subjects	Other: 1

Notes:

[1] - The number of subjects reported to have started the pre-assignment period are not the same as the worldwide number enrolled in the trial. It is expected that these numbers will be the same.
Justification: We do not count screened participants as enrolled.

Period 1

Period 1 title	Overall Trial (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator

Arms

Are arms mutually exclusive?	Yes
Arm title	Placebo

Arm description: -

Arm type	Placebo
Investigational medicinal product name	PL1
Investigational medicinal product code	Placebo
Other name	
Pharmaceutical forms	Film-coated tablet
Routes of administration	Oral use

Dosage and administration details:

500mg oral x2

Arm title	Active

Arm description: -

Arm type	Experimental
Investigational medicinal product name	Ursofalk 500mg film-coated tablets
Investigational medicinal product code	A05AA02
Other name	
Pharmaceutical forms	Film-coated tablet
Routes of administration	Oral use

Dosage and administration details:

1000mg milligram(s) Oral

Number of subjects in period 1	Placebo	Active
Started	15	16
Completed	15	16

Baseline characteristics

Reporting groups	
Reporting group title	Placebo
Reporting group description: -	
Reporting group title	Active
Reporting group description: -	

Reporting group values	Placebo	Active	Total
Number of subjects	15	16	31
Age categorical Units: Subjects			
In utero			0
Preterm newborn infants (gestational age < 37 wks)			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)			0
From 65-84 years			0
85 years and over			0
Age continuous Units: years			
arithmetic mean	53.4	54.8	
standard deviation	± 14.2	± 13.6	-
Gender categorical Units: Subjects			
Female	5	5	10
Male	10	11	21

End points

End points reporting groups

Reporting group title	Placebo
Reporting group description: -	
Reporting group title	Active
Reporting group description: -	

Primary: Change in albuminuria

End point title	Change in albuminuria[1]

End point description:

To evaluate if Ursodeoxycholic acid reduces albuminuria in patients with type 1 diabetes mellitus (T1DM) with residual albuminuria despite established standard care.

End point type	Primary

End point timeframe:

Baseline - week 24

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: Please see uploaded report

End point values	Placebo	Active		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	11	13		
Units: mcg/min				
log mean (standard deviation)	4.73 (± 1.75)	3.71 (± 1.69)		

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information	
Timeframe for reporting adverse events: Baseline - 48 weeks	
Assessment type	Non-systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	22.1

Reporting groups	
Reporting group title	Active
Reporting group description: Ursodeoxycholic Acid	
Reporting group title	Placebo
Reporting group description: -	

Serious adverse events	Active	Placebo	
Total subjects affected by serious adverse events			
subjects affected / exposed	3 / 16 (18.75%)	0 / 15 (0.00%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events	0	0	
Surgical and medical procedures			
Bowel Resection			
subjects affected / exposed	1 / 16 (6.25%)	0 / 15 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Psychiatric disorders			
Alcohol Dependence Syndrome	Additional description: Assigned from SAE to IME after initial report		
subjects affected / exposed	1 / 16 (6.25%)	0 / 15 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Infections and infestations			
Lower Respiratory Tract Infection			
subjects affected / exposed	1 / 16 (6.25%)	0 / 15 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Metabolism and nutrition disorders			
Diabetic Ketoacidosis			

subjects affected / exposed	1 / 16 (6.25%)	0 / 15 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	

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

Non-serious adverse events	Active	Placebo	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	6 / 16 (37.50%)	10 / 15 (66.67%)	
Investigations			
Creatinine blood increased			
subjects affected / exposed	1 / 16 (6.25%)	0 / 15 (0.00%)	
occurrences (all)	1	0	
Injury, poisoning and procedural complications			
Bruised left knee after falling			
subjects affected / exposed	0 / 16 (0.00%)	1 / 15 (6.67%)	
occurrences (all)	0	1	
Big toe fracture			
subjects affected / exposed	0 / 16 (0.00%)	1 / 15 (6.67%)	
occurrences (all)	0	1	
Right arm fracture			
subjects affected / exposed	1 / 16 (6.25%)	0 / 15 (0.00%)	
occurrences (all)	1	0	
Fall			
subjects affected / exposed	0 / 16 (0.00%)	1 / 15 (6.67%)	
occurrences (all)	0	1	
Surgical and medical procedures			
Right arm operation			
subjects affected / exposed	0 / 16 (0.00%)	1 / 15 (6.67%)	
occurrences (all)	0	1	
General disorders and administration site conditions			
Flu-like cold symptoms			
subjects affected / exposed	0 / 16 (0.00%)	1 / 15 (6.67%)	
occurrences (all)	0	1	
Flu-like symptoms			

subjects affected / exposed	1 / 16 (6.25%)	1 / 15 (6.67%)	
occurrences (all)	1	1	
Lipohypertrohy at abdominal injection sites			
subjects affected / exposed	0 / 16 (0.00%)	1 / 15 (6.67%)	
occurrences (all)	0	1	
Leg Swelling			
subjects affected / exposed	1 / 16 (6.25%)	0 / 15 (0.00%)	
occurrences (all)	1	0	
Pain			
subjects affected / exposed	0 / 16 (0.00%)	1 / 15 (6.67%)	
occurrences (all)	0	1	
Eye disorders			
Acute Anterior Uveitis			
subjects affected / exposed	0 / 16 (0.00%)	1 / 15 (6.67%)	
occurrences (all)	0	1	
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	1 / 16 (6.25%)	1 / 15 (6.67%)	
occurrences (all)	1	1	
Excessive flatulence			
subjects affected / exposed	1 / 16 (6.25%)	0 / 15 (0.00%)	
occurrences (all)	1	0	
Lower stomach discomfort			
subjects affected / exposed	1 / 16 (6.25%)	0 / 15 (0.00%)	
occurrences (all)	1	0	
Nausea			
subjects affected / exposed	1 / 16 (6.25%)	0 / 15 (0.00%)	
occurrences (all)	1	0	
Toothache			
subjects affected / exposed	0 / 16 (0.00%)	1 / 15 (6.67%)	
occurrences (all)	0	1	
Skin and subcutaneous tissue disorders			
Worsening skin rash			
subjects affected / exposed	0 / 16 (0.00%)	1 / 15 (6.67%)	
occurrences (all)	0	1	
Musculoskeletal and connective tissue disorders			

Backache			
subjects affected / exposed	1 / 16 (6.25%)	0 / 15 (0.00%)	
occurrences (all)	1	0	
Back Pain			
subjects affected / exposed	0 / 16 (0.00%)	1 / 15 (6.67%)	
occurrences (all)	0	1	
Leg Cramps			
subjects affected / exposed	0 / 16 (0.00%)	1 / 15 (6.67%)	
occurrences (all)	0	1	
Lower back pain			
subjects affected / exposed	0 / 16 (0.00%)	1 / 15 (6.67%)	
occurrences (all)	0	1	
Infections and infestations			
Bladder Infection			
subjects affected / exposed	1 / 16 (6.25%)	0 / 15 (0.00%)	
occurrences (all)	3	0	
Cellulitis			
subjects affected / exposed	0 / 16 (0.00%)	1 / 15 (6.67%)	
occurrences (all)	0	1	
Covid Infection			
subjects affected / exposed	1 / 16 (6.25%)	1 / 15 (6.67%)	
occurrences (all)	2	1	
UTI			
subjects affected / exposed	1 / 16 (6.25%)	0 / 15 (0.00%)	
occurrences (all)	1	0	
Upper respiratory tract infection			
subjects affected / exposed	0 / 16 (0.00%)	1 / 15 (6.67%)	
occurrences (all)	0	1	

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
15 May 2018	UREDIA Protocol version 4.1

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported