Clinical trial results:
A Phase 2A, Randomized, Double-Blind, Placebo- Controlled, Multi-Center Study of Intravenous FDY-5301 in Acute Myocardial Infarction

Summary

EudraCT number	2017-000047-41
Trial protocol	GB HU PL
Global end of trial date	02 January 2019

Results information

Result version number	v1 (current)
This version publication date	28 June 2021
First version publication date	28 June 2021

Trial information

Trial identification

Sponsor protocol code	FDY-5301-201

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT03470441
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Faraday Pharmaceuticals, Inc.
Sponsor organisation address	1616 Eastlake Ave E, Suite 560, Seattle, United States, 98102
Public contact	Simon Tulloch, Faraday Pharmaceuticals Inc., +1 206-492-5310, trandall@FaradayPharma.com
Scientific contact	Simon Tulloch, Faraday Pharmaceuticals Inc., +1 206-492-5310, trandall@FaradayPharma.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	01 June 2020
Is this the analysis of the primary completion data?	Yes
Primary completion date	14 July 2018
Global end of trial reached?	Yes
Global end of trial date	02 January 2019
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To evaluate the safety, efficacy and pharmacokinetics (PK) of 3 dose levels of FDY-5301 compared to placebo in patients presenting with an acute ST-segment elevation myocardial infarction (STEMI) undergoing percutaneous coronary intervention (PCI).

Protection of trial subjects:

This trial complied with the International Conference on Harmonization Tripartite Guideline on Good Clinical Practice, the ethical principles stated in the latest version of the Declaration of Helsinki, and the applicable local and international regulations, whichever provide the greater protection of the individual.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	06 September 2017
Long term follow-up planned	Yes
Long term follow-up rationale	Efficacy
Long term follow-up duration	6 Months
Independent data monitoring committee (IDMC) involvement?	No

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Poland: 20
Country: Number of subjects enrolled	United Kingdom: 64
Country: Number of subjects enrolled	Hungary: 30
Country: Number of subjects enrolled	United States: 6
Worldwide total number of subjects	120
EEA total number of subjects	50

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)	71
From 65 to 84 years	49
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

The first participant enrolled on October 27, 2017 in study centers in Poland, Hungary, UK, and the United States.

Pre-assignment

Screening details:

A total of 120 subjects were randomized 3:1 to receive one of three dosage amounts of study drug or placebo.

Period 1

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

Arms

Are arms mutually exclusive?	Yes
Arm title	Experimental FDY-5301 Low Dose

Arm description:

0.5 mg/kg FDY-5301

Arm type	Experimental
Investigational medicinal product name	Sodium Iodide
Investigational medicinal product code	FDY-5301
Other name	
Pharmaceutical forms	Solution for injection
Routes of administration	Intravenous bolus use

Dosage and administration details:

FDY-5301 0.5 mg/kg will be administered intravenously (IV) by bolus injection between an hour and 5 minutes prior to coronary artery reperfusion.

Arm title	Experimental FDY-5301 Intermediate Dose

Arm description:

1.0 mg/kg FDY-5301

Arm type	Experimental
Investigational medicinal product name	Sodium Iodide
Investigational medicinal product code	FDY-5301
Other name	
Pharmaceutical forms	Solution for injection
Routes of administration	Intravenous bolus use

Dosage and administration details:

FDY-5301 1.0 mg/kg will be administered intravenously (IV) by bolus injection between an hour and 5 minutes prior to coronary artery reperfusion.

Arm title	Experimental FDY-5301 High Dose

Arm description:

2.0 mg/kg FDY-5301

Arm type	Experimental

Investigational medicinal product name	Sodium Iodide
Investigational medicinal product code	FDY-5301
Other name	
Pharmaceutical forms	Solution for injection
Routes of administration	Intravenous bolus use

Dosage and administration details:

FDY-5301 2.0 mg/kg will be administered intravenously (IV) by bolus injection between an hour and 5 minutes prior to coronary artery reperfusion.

Arm title	Placebo

Arm description:

Placebo

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	Placebo
Other name	
Pharmaceutical forms	Solution for injection
Routes of administration	Intravenous bolus use

Dosage and administration details:

Placebo will be administered intravenously (IV) by bolus injection between an hour and 5 minutes prior to coronary artery reperfusion.

Number of subjects in period 1	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose
Started	29	31	31
Completed	28	26	29
Not completed	1	5	2
Adverse event, serious fatal	-	-	-
Consent withdrawn by subject	1	4	1
Death	-	1	1

Number of subjects in period 1	Placebo
Started	29
Completed	25
Not completed	4
Adverse event, serious fatal	1
Consent withdrawn by subject	3
Death	-

Baseline characteristics

Reporting groups	
Reporting group title	Experimental FDY-5301 Low Dose
Reporting group description:	
0.5 mg/kg FDY-5301	
Reporting group title	Experimental FDY-5301 Intermediate Dose
Reporting group description:	
1.0 mg/kg FDY-5301	
Reporting group title	Experimental FDY-5301 High Dose
Reporting group description:	
2.0 mg/kg FDY-5301	
Reporting group title	Placebo
Reporting group description:	
Placebo	

Reporting group values	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose
Number of subjects	29	31	31
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)	14	22	17
From 65-84 years	15	9	14
85 years and over	0	0	0
Gender categorical Units: Subjects			
Female	5	11	11
Male	24	20	20
Ethnicity Units: Subjects			
Hispanic or Latino	0	1	1
Not Hispanic or Latino	29	30	30
Race Units: Subjects			
White	29	27	30
Black	0	1	0
Asian	0	1	0
American Indian	0	1	0
Other	0	1	1

Weight			
Units: kg			
arithmetic mean	81.62	81.76	81.52
standard deviation	± 14.703	± 13.453	± 15.749
Height			
Units: cm			
arithmetic mean	173	171	170
standard deviation	± 7.8	± 8.2	± 10.7
BMI			
Units: kg/m2			
arithmetic mean	27.1	28	28.1
standard deviation	± 4.17	± 4.29	± 4.88

Reporting group values	Placebo	Total	
Number of subjects	29	120	
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)	18	71	
From 65-84 years	11	49	
85 years and over	0	0	
Gender categorical			
Units: Subjects			
Female	10	37	
Male	19	83	
Ethnicity			
Units: Subjects			
Hispanic or Latino	1	3	
Not Hispanic or Latino	28	117	
Race			
Units: Subjects			
White	27	113	
Black	0	1	
Asian	1	2	
American Indian	0	1	
Other	1	3	
Weight			
Units: kg			
arithmetic mean	82.23		
standard deviation	± 15.162	-	
Height			
Units: cm			
arithmetic mean	170		
standard deviation	± 8.3	-	
BMI			

Units: kg/m2			
arithmetic mean	28.5		
standard deviation	± 4.43	-	

End points

End points reporting groups

Reporting group title	Experimental FDY-5301 Low Dose
Reporting group description: 0.5 mg/kg FDY-5301	
Reporting group title	Experimental FDY-5301 Intermediate Dose
Reporting group description: 1.0 mg/kg FDY-5301	
Reporting group title	Experimental FDY-5301 High Dose
Reporting group description: 2.0 mg/kg FDY-5301	
Reporting group title	Placebo
Reporting group description: Placebo	

Primary: Arrhythmias of Interest, 48 Hours (Overall)

End point title	Arrhythmias of Interest, 48 Hours (Overall)[1]
End point description: Number of patients experiencing clinically relevant arrhythmias during the first 48 hours post-treatment.	
End point type	Primary
End point timeframe: First 48 hours post-treatment	

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: As little data exists on the incidence of arrhythmias that occur over an extended period of time following AMI, descriptive analysis of the primary endpoint was appropriate in this study due to the absence of an externally validated benchmark which would normally serve as the basis for hypothesis testing of FDY-5301's effect on arrhythmias.

End point values	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose	Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	28	29	29	26
Units: Number of Subjects				
Ventricular Fibrillation	0	0	0	0
Sustained Ventricular Tachycardia	0	0	0	0
Non-Sustained Ventricular Tachycardia	1	1	7	2
High-Degree AV Block	0	0	2	0
Atrial Fibrillation	0	2	1	1

Statistical analyses

No statistical analyses for this end point

Primary: Arrhythmias of Interest Incidence Rate, 48 Hours (Overall)

End point title	Arrhythmias of Interest Incidence Rate, 48 Hours (Overall)[2]

End point description:

Incidence rate of clinically relevant arrhythmias during the first 48 hours post-treatment defined as the number of patients who experienced an arrhythmia divided by the total person-monitoring time within each treatment group

End point type	Primary

End point timeframe:

48 hours post-treatment

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: As little data exists on the incidence of arrhythmias that occur over an extended period of time following AMI, descriptive analysis of the primary endpoint was appropriate in this study due to the absence of an externally validated benchmark which would normally serve as the basis for hypothesis testing of FDY-5301's effect on arrhythmias.

End point values	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose	Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	28	29	29	26
Units: Incidence Rate				
number (not applicable)				
Ventricular Fibrillation	0	0	0	0
Sustained Ventricular Tachycardia	0	0	0	0
Non-Sustained Ventricular Tachycardia	.0766	.0797	.548	.168
High-Degree AV Block	0	0	0.157	0
Atrial Fibrillation	0	.159	.0783	.0838

Statistical analyses

No statistical analyses for this end point

Primary: Arrhythmias of Interest, 14 Days (Overall)

End point title	Arrhythmias of Interest, 14 Days (Overall)[3]

End point description:

Number of patients experiencing clinically relevant arrhythmias 48 hours to 14 days post-treatment

End point type	Primary

End point timeframe:

48 hours to 14 days post-treatment

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: As little data exists on the incidence of arrhythmias that occur over an extended period of time following AMI, descriptive analysis of the primary endpoint was appropriate in this study due to the absence of an externally validated benchmark which would normally serve as the basis for hypothesis testing of FDY-5301's effect on arrhythmias.

End point values	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose	Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	28	28	28	25
Units: Number of subjects				
Ventricular Fibrillation	0	0	0	0
Sustained Ventricular Tachycardia	0	0	0	0
Non-Sustained Ventricular Tachycardia	0	1	0	0
High-Degree AV Block	0	0	2	0
Atrial Fibrillation	3	2	2	1

Statistical analyses

No statistical analyses for this end point

Primary: Arrhythmias of Interest Incidence Rate, 14 Days (Overall)

End point title	Arrhythmias of Interest Incidence Rate, 14 Days (Overall)[4]

End point description:

Incidence rate of clinically relevant arrhythmias 48 hours to 14 days post-treatment defined as the number of patients who experienced an arrhythmia divided by the total person-monitoring time within each treatment group

End point type	Primary

End point timeframe:

48 hours to 14 days post-treatment

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: As little data exists on the incidence of arrhythmias that occur over an extended period of time following AMI, descriptive analysis of the primary endpoint was appropriate in this study due to the absence of an externally validated benchmark which would normally serve as the basis for hypothesis testing of FDY-5301's effect on arrhythmias.

End point values	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose	Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	28	28	28	25
Units: Incidence rate				
number (not applicable)				
Ventricular Fibrillation	0	0	0	0
Sustained Ventricular Tachycardia	0	0	0	0
Non-Sustained Ventricular Tachycardia	0	0.0147	0	0
High-Degree AV Block	0	0	0.0295	0
Atrial Fibrillation	0.0475	0.0293	0.0295	0.0166

Statistical analyses

No statistical analyses for this end point

Secondary: Infarct Size Relative to Ventricular Volume, 72 Hours (Overall)

End point title	Infarct Size Relative to Ventricular Volume, 72 Hours (Overall)

End point description:

Infarct size relative to ventricular volume (INF/VV) at 72 hours post-treatment

End point type	Secondary

End point timeframe:

72 hours post-treatment

End point values	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose	Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	22	18	20	20
Units: INF/VV (%)				
median (full range (min-max))	19.1 (0 to 50.2)	16.9 (0 to 51.3)	19.6 (5.2 to 51.4)	20.4 (0 to 60.3)

Statistical analyses

No statistical analyses for this end point

Secondary: Infarct Size Relative to Ventricular Volume, 3 Months (Overall)

End point title	Infarct Size Relative to Ventricular Volume, 3 Months (Overall)

End point description:

Infarct size relative to ventricular volume (INF/VV) at 3 months post-treatment

End point type	Secondary

End point timeframe:

3 months post-treatment

End point values	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose	Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	24	14	22	15
Units: INF/VV (%)				
median (full range (min-max))	11.7 (0 to 52)	11.4 (0 to 50.7)	8.5 (0 to 49.5)	14.9 (0 to 48.4)

Statistical analyses

No statistical analyses for this end point

Secondary: Infarct Size Relative to Ventricular Volume, 72 Hours (Anterior Infarcts)

End point title	Infarct Size Relative to Ventricular Volume, 72 Hours (Anterior Infarcts)
End point description:	
Infarct size relative to ventricular volume (INF/VV) at 72 hours post-treatment	
End point type	Secondary
End point timeframe:	
72 hours post-treatment	

End point values	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose	Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	9	6	7	7
Units: INF/VV (%)				
median (full range (min-max))	33 (0 to 39.9)	15.8 (0 to 51.3)	12.1 (9.8 to 45.8)	26.7 (0 to 60.3)

Statistical analyses

No statistical analyses for this end point

Secondary: Infarct Size Relative to Ventricular Volume, 3 Months (Anterior Infarcts)

End point title	Infarct Size Relative to Ventricular Volume, 3 Months (Anterior Infarcts)
End point description:	
Infarct size relative to ventricular volume (INF/VV) at 3 months post-treatment	
End point type	Secondary
End point timeframe:	
3 months post-treatment	

End point values	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose	Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	11	6	7	6
Units: INF/VV (%)				
median (full range (min-max))	19.7 (0 to 52)	10.4 (0 to 50.7)	9.3 (0 to 34.4)	22.8 (1.4 to 48.4)

Statistical analyses

No statistical analyses for this end point

Secondary: Left Ventricular End Systolic Volume Index, 72 Hours (Overall)

End point title	Left Ventricular End Systolic Volume Index, 72 Hours (Overall)

End point description:

Left ventricular end systolic volume index (LVESVi) at 72 hours post-treatment

End point type	Secondary

End point timeframe:

72 hours post-treatment

End point values	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose	Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	25	21	21	21
Units: mL/kg/M2				
median (full range (min-max))	40 (20 to 65.2)	32 (15 to 72)	32 (12 to 68)	38 (18 to 53)

Statistical analyses

No statistical analyses for this end point

Secondary: Left Ventricular End Systolic Volume Index, 3 Months (Overall)

End point title	Left Ventricular End Systolic Volume Index, 3 Months (Overall)

End point description:

Left ventricular end systolic volume index (LVESVi) at 3 months post-treatment

End point type	Secondary

End point timeframe:

3 months post-treatment

End point values	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose	Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	24	16	23	17
Units: mL/kg/M2				
median (full range (min-max))	29 (15 to 78)	25.5 (7 to 100)	27 (10 to 73)	36 (14 to 67)

Statistical analyses

No statistical analyses for this end point

Secondary: Left Ventricular End Systolic Volume Index, 72 Hours (Anterior Infarcts)

End point title	Left Ventricular End Systolic Volume Index, 72 Hours (Anterior Infarcts)

End point description:

Left ventricular end systolic volume index (LVESVi) at 72 hours post-treatment

End point type	Secondary

End point timeframe:

72 hours post-treatment

End point values	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose	Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	10	7	8	7
Units: mL/kg/M2				
median (full range (min-max))	45.5 (21 to 65.2)	32 (15 to 48)	31 (13.1 to 41)	42 (18 to 53)

Statistical analyses

No statistical analyses for this end point

Secondary: Left Ventricular End Systolic Volume Index, 3 Months (Anterior Infarcts)

End point title	Left Ventricular End Systolic Volume Index, 3 Months (Anterior Infarcts)

End point description:

Left ventricular end systolic volume index (LVESVi) at 3 months post-treatment

End point type	Secondary

End point timeframe:

3 months post-treatment

End point values	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose	Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	11	6	8	7
Units: mL/kg/M2				
median (full range (min-max))	37 (16 to 68)	28 (7 to 43)	23.5 (14 to 40)	36 (19 to 67)

Statistical analyses

No statistical analyses for this end point

Secondary: Left Ventricular Ejection Fraction, 72 Hours (Overall)

End point title	Left Ventricular Ejection Fraction, 72 Hours (Overall)
End point description:	
Left ventricular ejection fraction at 72 hours post-treatment	
End point type	Secondary
End point timeframe:	
72 hours post-treatment	

End point values	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose	Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	25	21	21	21
Units: mL/kg/M2				
median (full range (min-max))	51.4 (31.2 to 69.5)	51.7 (33.8 to 78.6)	54.5 (35.9 to 75.1)	48.7 (35.2 to 73.5)

Statistical analyses

No statistical analyses for this end point

Secondary: Left Ventricular Ejection Fraction, 3 Months (Overall)

End point title	Left Ventricular Ejection Fraction, 3 Months (Overall)
End point description:	
Left ventricular ejection fraction at 3 months post-treatment	
End point type	Secondary
End point timeframe:	
3 months post-treatment	

End point values	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose	Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	24	16	23	17
Units: mL/kg/M2				
median (full range (min-max))	59.5 (29 to 72.4)	58.9 (25 to 87.5)	63.2 (36.8 to 72.1)	53.9 (39.1 to 76.9)

Statistical analyses

No statistical analyses for this end point

Secondary: Left Ventricular Ejection Fraction, 72 Hours (Anterior Infarcts)

End point title	Left Ventricular Ejection Fraction, 72 Hours (Anterior Infarcts)
End point description:	
Left ventricular ejection fraction at 72 hours post-treatment	
End point type	Secondary
End point timeframe:	
72 hours post-treatment	

End point values	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose	Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	10	7	8	7
Units: mL/kg/M2				
median (full range (min-max))	48 (34.4 to 69.5)	51.7 (33.8 to 78.6)	57.3 (35.9 to 75.1)	43.2 (35.2 to 73.5)

Statistical analyses

No statistical analyses for this end point

Secondary: Left Ventricular Ejection Fraction, 3 Months (Anterior Infarcts)

End point title	Left Ventricular Ejection Fraction, 3 Months (Anterior Infarcts)
End point description:	
Left ventricular ejection fraction at 3 months post-treatment	
End point type	Secondary

End point timeframe:
3 months post-treatment

End point values	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose	Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	11	6	8	7
Units: mL/kg/M2				
median (full range (min-max))	55.7 (34.9 to 72.4)	57.2 (45.2 to 87.5)	67.6 (48 to 72.1)	50.4 (41.2 to 76.9)

Statistical analyses

No statistical analyses for this end point

Secondary: Serum Troponin Concentrations, 48 Hours (Overall)

End point title	Serum Troponin Concentrations, 48 Hours (Overall)

End point description:
Concentration of serum troponins measured over 48 hours post-treatment

End point type	Secondary

End point timeframe:
48 hours post-treatment

End point values	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose	Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	25	25	24	19
Units: AUC4-48 µg/L				
median (full range (min-max))	90.5 (-19.3 to 383)	98.1 (0.0274 to 538)	108 (32.8 to 591)	112 (4.5 to 752)

Statistical analyses

No statistical analyses for this end point

Secondary: Serum Troponin Concentrations, 48 Hours (Anterior Infarcts)

End point title	Serum Troponin Concentrations, 48 Hours (Anterior Infarcts)

End point description:
Concentration of serum troponins measured over 48 hours post-treatment

End point type	Secondary

End point timeframe:

48 hours post-treatment

End point values	Experimental FDY-5301 Low Dose	Experimental FDY-5301 Intermediate Dose	Experimental FDY-5301 High Dose	Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	12	9	9	8
Units: AUC4-48 µg/L				
median (full range (min-max))	123 (-19.3 to 3361)	55 (0.0274 to 538)	111 (32.8 to 591)	83.8 (42.5 to 752)

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information	
Timeframe for reporting adverse events: Day 1 to 3 months	
Assessment type	Systematic
Dictionary used	
Dictionary name	MedDRA
Dictionary version	20.0
Reporting groups	
Reporting group title	Experimental FDY-5301 0.5 mg/kg
Reporting group description: 0.5 mg/kg FDY-5301	
Reporting group title	Experimental FDY-5301 1.0 mg/kg
Reporting group description: 1.0 mg/kg FDY-5301	
Reporting group title	Experimental FDY-5301 2.0 mg/kg
Reporting group description: 2.0 mg/kg FDY-5301	
Reporting group title	Placebo
Reporting group description: Placebo	

Serious adverse events	Experimental FDY-5301 0.5 mg/kg	Experimental FDY-5301 1.0 mg/kg	Experimental FDY-5301 2.0 mg/kg
Total subjects affected by serious adverse events			
subjects affected / exposed	7 / 29 (24.14%)	7 / 31 (22.58%)	4 / 31 (12.90%)
number of deaths (all causes)	0	1	1
number of deaths resulting from adverse events	0	1	1
Investigations			
Liver function test abnormal			
subjects affected / exposed	1 / 29 (3.45%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Basal cell carcinoma			
subjects affected / exposed	0 / 29 (0.00%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Vascular disorders			
Haematoma			

subjects affected / exposed	0 / 29 (0.00%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Cardiac disorders			
Angina Pectoris			
subjects affected / exposed	0 / 29 (0.00%)	1 / 31 (3.23%)	2 / 31 (6.45%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Cardiogenic Shock			
subjects affected / exposed	0 / 29 (0.00%)	1 / 31 (3.23%)	1 / 31 (3.23%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 1	0 / 1
Ventricular fibrillation			
subjects affected / exposed	0 / 29 (0.00%)	2 / 31 (6.45%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 2	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Atrial fibrillation			
subjects affected / exposed	2 / 29 (6.90%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Cardiac failure congestive			
subjects affected / exposed	0 / 29 (0.00%)	1 / 31 (3.23%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 2	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Coronary artery disease			
subjects affected / exposed	1 / 29 (3.45%)	1 / 31 (3.23%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Acute myocardial infarction			
subjects affected / exposed	1 / 29 (3.45%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Cardiac failure			

subjects affected / exposed	0 / 29 (0.00%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Cardiac ventricular thrombosis			
subjects affected / exposed	1 / 29 (3.45%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Coronary artery dissection			
subjects affected / exposed	1 / 29 (3.45%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Coronary artery perforation			
subjects affected / exposed	0 / 29 (0.00%)	1 / 31 (3.23%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Mitral valve disease			
subjects affected / exposed	0 / 29 (0.00%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Nervous system disorders			
Ischaemic stroke			
subjects affected / exposed	1 / 29 (3.45%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
General disorders and administration site conditions			
Chest pain			
subjects affected / exposed	0 / 29 (0.00%)	2 / 31 (6.45%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 2	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Vascular stent thrombosis			
subjects affected / exposed	1 / 29 (3.45%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Gastrointestinal disorders			
Colitis			
subjects affected / exposed	1 / 29 (3.45%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastroduodenitis			
subjects affected / exposed	1 / 29 (3.45%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Retroperitoneal haematoma			
subjects affected / exposed	0 / 29 (0.00%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Respiratory, thoracic and mediastinal disorders			
Chronic obstructive pulmonary disease			
subjects affected / exposed	0 / 29 (0.00%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pulmonary embolism			
subjects affected / exposed	0 / 29 (0.00%)	1 / 31 (3.23%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Psychiatric disorders			
Delirium			
subjects affected / exposed	1 / 29 (3.45%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Renal and urinary disorders			
Acute kidney injury			
subjects affected / exposed	0 / 29 (0.00%)	0 / 31 (0.00%)	1 / 31 (3.23%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Infections and infestations			
Appendicitis			

subjects affected / exposed	0 / 29 (0.00%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Diverticulitis			
subjects affected / exposed	0 / 29 (0.00%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Peritonitis			
subjects affected / exposed	0 / 29 (0.00%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pneumonia			
subjects affected / exposed	0 / 29 (0.00%)	1 / 31 (3.23%)	0 / 31 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Serious adverse events	Placebo		
Total subjects affected by serious adverse events			
subjects affected / exposed	8 / 29 (27.59%)		
number of deaths (all causes)	1		
number of deaths resulting from adverse events	1		
Investigations			
Liver function test abnormal			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Basal cell carcinoma			
subjects affected / exposed	1 / 29 (3.45%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Vascular disorders			
Haematoma			

subjects affected / exposed	1 / 29 (3.45%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Cardiac disorders			
Angina Pectoris			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Cardiogenic Shock			
subjects affected / exposed	1 / 29 (3.45%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 1		
Ventricular fibrillation			
subjects affected / exposed	1 / 29 (3.45%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Atrial fibrillation			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Cardiac failure congestive			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Coronary artery disease			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Acute myocardial infarction			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Cardiac failure			

subjects affected / exposed	1 / 29 (3.45%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Cardiac ventricular thrombosis			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Coronary artery dissection			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Coronary artery perforation			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Mitral valve disease			
subjects affected / exposed	1 / 29 (3.45%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Nervous system disorders			
Ischaemic stroke			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
General disorders and administration site conditions			
Chest pain			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Vascular stent thrombosis			
subjects affected / exposed	1 / 29 (3.45%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		

Gastrointestinal disorders			
Colitis			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Gastroduodenitis			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Retroperitoneal haematoma			
subjects affected / exposed	1 / 29 (3.45%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Respiratory, thoracic and mediastinal disorders			
Chronic obstructive pulmonary disease			
subjects affected / exposed	1 / 29 (3.45%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Pulmonary embolism			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Psychiatric disorders			
Delirium			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Renal and urinary disorders			
Acute kidney injury			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			
Appendicitis			

subjects affected / exposed	1 / 29 (3.45%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Diverticulitis			
subjects affected / exposed	1 / 29 (3.45%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Peritonitis			
subjects affected / exposed	1 / 29 (3.45%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Pneumonia			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		

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

Non-serious adverse events	Experimental FDY-5301 0.5 mg/kg	Experimental FDY-5301 1.0 mg/kg	Experimental FDY-5301 2.0 mg/kg
Total subjects affected by non-serious adverse events			
subjects affected / exposed	9 / 29 (31.03%)	4 / 31 (12.90%)	9 / 31 (29.03%)
Vascular disorders			
Haematoma			
subjects affected / exposed	2 / 29 (6.90%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences (all)	2	0	0
Peripheral coldness			
subjects affected / exposed	0 / 29 (0.00%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences (all)	0	0	0
Cardiac disorders			
Ventricular tachycardia			
subjects affected / exposed	0 / 29 (0.00%)	2 / 31 (6.45%)	3 / 31 (9.68%)
occurrences (all)	0	2	3
Cardiac failure			
subjects affected / exposed	2 / 29 (6.90%)	0 / 31 (0.00%)	1 / 31 (3.23%)
occurrences (all)	2	0	1

Nervous system disorders			
Dizziness			
subjects affected / exposed	1 / 29 (3.45%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences (all)	1	0	0
Headache			
subjects affected / exposed	0 / 29 (0.00%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences (all)	0	0	0
General disorders and administration site conditions			
Chest pain			
subjects affected / exposed	1 / 29 (3.45%)	0 / 31 (0.00%)	4 / 31 (12.90%)
occurrences (all)	1	0	4
Blood and lymphatic system disorders			
Leukocytosis			
subjects affected / exposed	0 / 29 (0.00%)	2 / 31 (6.45%)	2 / 31 (6.45%)
occurrences (all)	0	3	2
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	1 / 29 (3.45%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences (all)	1	0	0
Constipation			
subjects affected / exposed	2 / 29 (6.90%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences (all)	2	0	0
Psychiatric disorders			
Insomnia			
subjects affected / exposed	0 / 29 (0.00%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences (all)	0	0	0
Musculoskeletal and connective tissue disorders			
Arthralgia			
subjects affected / exposed	0 / 29 (0.00%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences (all)	0	0	0
Infections and infestations			
Viral upper respiratory tract infection			
subjects affected / exposed	0 / 29 (0.00%)	0 / 31 (0.00%)	0 / 31 (0.00%)
occurrences (all)	0	0	0

Non-serious adverse events	Placebo		
Total subjects affected by non-serious adverse events			

subjects affected / exposed	18 / 29 (62.07%)		
Vascular disorders			
Haematoma			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences (all)	0		
Peripheral coldness			
subjects affected / exposed	2 / 29 (6.90%)		
occurrences (all)	2		
Cardiac disorders			
Ventricular tachycardia			
subjects affected / exposed	1 / 29 (3.45%)		
occurrences (all)	1		
Cardiac failure			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences (all)	0		
Nervous system disorders			
Dizziness			
subjects affected / exposed	2 / 29 (6.90%)		
occurrences (all)	2		
Headache			
subjects affected / exposed	3 / 29 (10.34%)		
occurrences (all)	3		
General disorders and administration site conditions			
Chest pain			
subjects affected / exposed	1 / 29 (3.45%)		
occurrences (all)	1		
Blood and lymphatic system disorders			
Leukocytosis			
subjects affected / exposed	1 / 29 (3.45%)		
occurrences (all)	1		
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	3 / 29 (10.34%)		
occurrences (all)	3		
Constipation			
subjects affected / exposed	0 / 29 (0.00%)		
occurrences (all)	0		
Psychiatric disorders			

Insomnia subjects affected / exposed occurrences (all)	2 / 29 (6.90%) 2		
Musculoskeletal and connective tissue disorders Arthralgia subjects affected / exposed occurrences (all)	2 / 29 (6.90%) 2		
Infections and infestations Viral upper respiratory tract infection subjects affected / exposed occurrences (all)	2 / 29 (6.90%) 2		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
03 October 2016	UK Protocol Version 2.1
21 August 2017	Poland/Hungary Protocol Version 2
17 September 2017	US Protocol Version 1
21 May 2018	UK Protocol Amendment Version 2.2, Poland/Hungary Protocol Version 3, US Protocol Version 2

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported