Clinical trial results:
Bicentric clinical trial with in vitro experiments to assess the effect of Fibrinogen (FGTW) on Coagulation in Thrombocytopenia

Summary

EudraCT number	2012-004087-22
Trial protocol	AT
Global end of trial date	28 August 2014

Results information

Result version number	v1 (current)
This version publication date	18 November 2016
First version publication date	18 November 2016

Trial information

Trial identification

Sponsor protocol code	FiT2012

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT01955811
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Medical University of Innsbruck
Sponsor organisation address	Anichstr. 35, Innsbruck, Austria, 6020
Public contact	Projektmanagement, Medizinische Universität Innsbruck / Univ.-Klinik für Allgem. und Chirurgische Intensivmedizin, +43 51250480604, bettina.schenk@i-med.ac.at
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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	28 August 2014
Is this the analysis of the primary completion data?	Yes
Primary completion date	28 August 2014
Global end of trial reached?	Yes
Global end of trial date	28 August 2014
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The primary objective is to assess the difference in maximum clot firmness (MCF) in ROTEM ExTEM® between blood samples after in vitro spiking and compared to those blood samples obtained from the same patients after platelet-transfusion.

Protection of trial subjects:

Blood was drawn from an already implemented line.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	02 January 2013
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: 96
Worldwide total number of subjects	96
EEA total number of subjects	96

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)	34
From 65 to 84 years	59
85 years and over	3

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

Patient with the clinical need for platelet transfusion
Age 18-85 years

Period 1

Period 1 title	Baseline V2 (1 hour after PT)
Is this the baseline period?	Yes
Allocation method	Not applicable
Blinding used	Not blinded

Arms

Are arms mutually exclusive?	No
Arm title	Platelet transfusion

Arm description: -

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

Dosage and administration details:

1-2 units (250 - 500 ml)

Arm title	Fibrinogen

Arm description: -

Arm type	Experimental
Investigational medicinal product name	Fibrinogen Concentrate
Investigational medicinal product code	F1
Other name	
Pharmaceutical forms	Concentrate and solvent for solution for injection, Concentrate and solvent for solution for infusion
Routes of administration	In vitro use

Dosage and administration details:

50,100,200 and 400 mg/kg body weight

Number of subjects in period 1	Platelet transfusion	Fibrinogen
Started	96	96
Completed	96	96

Period 2

Period 2 title	Baseline (before PT)
Is this the baseline period?	No
Allocation method	Not applicable
Blinding used	Not blinded

Arms

Are arms mutually exclusive?	Yes
Arm title	Fibrinogen

Arm description: -

Arm type	Experimental
Investigational medicinal product name	Fibrinogen Concentrate
Investigational medicinal product code	F1
Other name	
Pharmaceutical forms	Concentrate and solvent for solution for injection, Concentrate and solvent for solution for infusion
Routes of administration	In vitro use

Dosage and administration details:

50,100,200 and 400 mg/kg body weight

Arm title	Platelet transfusion

Arm description:

platelet transfusion

Arm type	Active comparator
Investigational medicinal product name	platelet concentrate
Investigational medicinal product code	PT
Other name	
Pharmaceutical forms	Infusion
Routes of administration	Intravenous use

Dosage and administration details:

1-2 units (250 - 500 ml)

Number of subjects in period 2	Fibrinogen	Platelet transfusion
Started	96	96
Completed	96	96

Baseline characteristics

Reporting groups

Reporting group title	Baseline V2 (1 hour after PT)

Reporting group description: -

Reporting group values	Baseline V2 (1 hour after PT)	Total	
Number of subjects	96	96	
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)	34	34	
From 65-84 years	59	59	
85 years and over	3	3	
Gender categorical Units: Subjects			
Female	21	21	
Male	75	75	

End points

End points reporting groups

Reporting group title	Platelet transfusion
Reporting group description: -	
Reporting group title	Fibrinogen
Reporting group description: -	
Reporting group title	Fibrinogen
Reporting group description: -	
Reporting group title	Platelet transfusion
Reporting group description: platelet transfusion	

Primary: EXTEM MCF

End point title	EXTEM MCF

End point description:

End point type	Primary

End point timeframe:

Blood samples from V2 (1 hour after platelet transfusion) are compared to blood samples from V1 (before platelet transfusion) spiked with various amounts of human fibrinogen concentrate.

End point values	Platelet transfusion	Fibrinogen	Fibrinogen	Platelet transfusion
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	96	96	96	96
Units: mm				
arithmetic mean (standard deviation)	49 (± 9)	53 (± 9)	44 (± 9)	58 (± 9)

Statistical analyses

Statistical analysis title	Wilcoxon signed rank test
Comparison groups	Fibrinogen v Platelet transfusion
Number of subjects included in analysis	192
Analysis specification	Post-hoc
Analysis type	equivalence
P-value	< 0.05
Method	Wilcoxon (Mann-Whitney)
Parameter estimate	Median difference (final values)
Point estimate	0.06

Confidence interval	
level	95 %
sides	2-sided
lower limit	0.05
upper limit	0.95
Variability estimate	Standard deviation

Adverse events

Adverse events information	
Timeframe for reporting adverse events: JAN/2013-AUG/2014	
Assessment type	Systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	10

Reporting groups	
Reporting group title	Patient Population

Reporting group description: -

Serious adverse events	Patient Population		
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 96 (0.00%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		

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

Non-serious adverse events	Patient Population		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	1 / 96 (1.04%)		
General disorders and administration site conditions			
Pain	Additional description: Patient suffered from pain in the shoulder.		
subjects affected / exposed	1 / 96 (1.04%)		
occurrences (all)	1		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
22 March 2013	addition of confocal microscopy, adaption of fibrinogen values
14 June 2013	adaption of time period and fibrinogen concentration

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.

A limitation of the study is that fibrinogen addition was performed ex vivo and that a significant proportion of patients (24%) received fibrinogen concentrate in addition to PT which potentially influences results from V2 Baseline (1 h after PT)

Notes: