



Clinical trial results:

Vernakalant is superior to ibutilide for achieving sinus rhythm in patients with recent-onset atrial fibrillation: a randomized controlled trial at the emergency department

Summary

EudraCT number	2011-000695-34
Trial protocol	AT
Global end of trial date	12 May 2015

Results information

Result version number	v1 (current)
This version publication date	06 May 2020
First version publication date	06 May 2020
Summary attachment (see zip file)	Vernakalant is superior to ibutilide for achieving sinus rhythm in patients with recent-onset atrial fibrillation (Vernakalant is superior to ibutilide for achieving sinus rhythm in patients with recent-onset atrial fibrillation- a randomized controlled trial at the emergency department.pdf)

Trial information

Trial identification

Sponsor protocol code	Verna-Ibu-AF_1.0
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Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT01447862
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Medical University Vienna
Sponsor organisation address	Waehringer Guertel 18 - 20, Vienna, Austria, 1090
Public contact	Alexander Spiel, Medical University of Vienna, Department of Emergency Medicine, +43 1404003953, alexander.spiel@meduniwien.ac.at
Scientific contact	Alexander Spiel, Medical University of Vienna, Department of Emergency Medicine, +43 1404003953, alexander.spiel@meduniwien.ac.at

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	12 May 2015
Is this the analysis of the primary completion data?	Yes
Primary completion date	12 May 2015
Global end of trial reached?	Yes
Global end of trial date	12 May 2015
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To compare the time duration and the efficacy of cardioversion between the two rapid-acting antiarrhythmic drugs vernakalant and ibutilide in patients with recent-onset atrial fibrillation admitted to the emergency medicine ward of a tertiary care hospital.

Protection of trial subjects:

According to data from the literature, vernakalant and ibutilide will lead to a cardioversion rate of approximately 50% in our study subjects. As we are aware of possible side effects of both ibutilide (especially ventricular arrhythmias/tachycardias, bundle branch blocks, atrioventricular blocks) and vernakalant (especially hypotension, bradycardia, dizziness, dysgeusia, sneezing, coughing) we will minimize the risk for side effects by appropriate exclusion criteria, by close monitoring (continuous saturation and ECG, blood pressure) of all participants and by providing all measures for adverse event management. Altogether, we assume a positive benefit/risk ratio.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	02 May 2011
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: 100
Worldwide total number of subjects	100
EEA total number of subjects	100

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)	59
From 65 to 84 years	40
85 years and over	1

Subject disposition

Recruitment

Recruitment details:

101 patients who have been admitted to the Emergency Department because of recent-onset atrial fibrillation (< 48h) have been recruited.

Pre-assignment

Screening details:

All patients, presenting to the emergency departement with symptoms of atrial fibrillation since no longer than 48 hours have been screened for potential enrollment.

Period 1

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

Arms

Are arms mutually exclusive?	Yes
Arm title	Ibutilide

Arm description:

Ibutilide has been used as an active comparator to Vernakalant

Arm type	Active comparator
Investigational medicinal product name	Corvert
Investigational medicinal product code	
Other name	Ibutilide
Pharmaceutical forms	Solution for infusion
Routes of administration	Intravenous use

Dosage and administration details:

Patients will be given 1mg of ibutilide in 100ml normal saline intravenously over 10min. If atrial fibrillation continues after another 10 minutes of observation, patients will receive a second infusion of 1mg ibutilide, again over 10min. If the initial rhythm has not converted to sinus rhythm after 2 hours, consented patients will be treated with electrical cardioversion using a standard routine protocol.

Arm title	Vernakalant
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Arm description:

Vernakalant has been used as the drug to be investigated, compared to ibutilide.

Arm type	Drug to be investigated
Investigational medicinal product name	Brinavess
Investigational medicinal product code	
Other name	Vernakalant
Pharmaceutical forms	Solution for infusion
Routes of administration	Intravenous drip use

Dosage and administration details:

Initially, patients will be given 3mg/kg Vernakalant in 100ml normal saline over 10min. If atrial fibrillation continues after another 15 minutes of observation, patients will receive a second infusion of Vernakalant (2mg/kg), again over 10 minutes. If the initial rhythm has not converted to sinus rhythm after 2 hours, consented patients will be treated with electrical cardioversion using a standard routine protocol.

Number of subjects in period 1	Ibutilide	Vernakalant
Started	51	49
Completed	50	49
Not completed	1	0
Adverse event, non-fatal	1	-

Baseline characteristics

Reporting groups

Reporting group title	Overall trial
Reporting group description: -	

Reporting group values	Overall trial	Total	
Number of subjects	100	100	
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)	0	0	
From 65-84 years	0	0	
85 years and over	0	0	
18-99	100	100	
Age continuous			
Units: years			
arithmetic mean	56.5		
standard deviation	± 15	-	
Gender categorical			
Units: Subjects			
Female	32	32	
Male	68	68	

Subject analysis sets

Subject analysis set title	Vernakalant
Subject analysis set type	Full analysis
Subject analysis set description:	
Patients received Vernakalant	
Subject analysis set title	Ibutilide
Subject analysis set type	Full analysis
Subject analysis set description:	
Subjects receiving Ibutilide	

Reporting group values	Vernakalant	Ibutilide	
Number of subjects	49	51	
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)	0	0	
From 65-84 years	0	0	
85 years and over	0	0	
18-99	49	51	
Age continuous			
Units: years			
arithmetic mean	56.2	56.7	
standard deviation	± 14.32	± 15.77	
Gender categorical			
Units: Subjects			
Female			
Male			

End points

End points reporting groups

Reporting group title	Ibutilide
Reporting group description: Ibutilide has been used as an active comparator to Vernakalant	
Reporting group title	Vernakalant
Reporting group description: Vernakalant has been used as the drug to be investigated, compared to ibutilide.	
Subject analysis set title	Vernakalant
Subject analysis set type	Full analysis
Subject analysis set description: Patients received Vernakalant	
Subject analysis set title	Ibutilide
Subject analysis set type	Full analysis
Subject analysis set description: Subjects receiving Ibutilide	

Primary: Time in minutes conversion to sinus rhythm

End point title	Time in minutes conversion to sinus rhythm
End point description:	
End point type	Primary
End point timeframe: 1 to 240 minutes	

End point values	Ibutilide	Vernakalant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	51	49		
Units: minutes				
median (inter-quartile range (Q1-Q3))	26 (9 to 55)	10 (6 to 17)		

Statistical analyses

Statistical analysis title	Primary endpoint statistic
Comparison groups	Ibutilide v Vernakalant
Number of subjects included in analysis	100
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.05
Method	Logrank

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Time during hospital stay

Assessment type	Non-systematic
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Dictionary used

Dictionary name	MedDRA
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Dictionary version	15
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Reporting groups

Reporting group title	Ibutilide
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Reporting group description:

Patients treated with ibutilide

Reporting group title	Vernakalant
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Reporting group description:

Patients treated with vernakalant

Serious adverse events	Ibutilide	Vernakalant	
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 51 (0.00%)	0 / 49 (0.00%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events	0	0	

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

Non-serious adverse events	Ibutilide	Vernakalant	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	18 / 51 (35.29%)	13 / 49 (26.53%)	
General disorders and administration site conditions			
Arrhythmia			
subjects affected / exposed	16 / 51 (31.37%)	7 / 49 (14.29%)	
occurrences (all)	24	7	
Sensational abnormalities			
subjects affected / exposed	2 / 51 (3.92%)	7 / 49 (14.29%)	
occurrences (all)	2	14	

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? No

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported