



**Clinical trial results:**

**A Pilot Phase IIa, Multicentre, Open, Proof-of-concept Study on the Safety and the Efficacy of Allogeneic Osteoblastic Cells (ALLOB®) Implantation in Rescue Interbody Fusion**

**Summary**

EudraCT number	2014-002416-16
Trial protocol	BE
Global end of trial date	25 May 2020

**Results information**

Result version number	v1 (current)
This version publication date	14 November 2021
First version publication date	14 November 2021

**Trial information**

**Trial identification**

Sponsor protocol code	ALLOB-RIF1
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**Additional study identifiers**

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT02328287
WHO universal trial number (UTN)	-

Notes:

**Sponsors**

Sponsor organisation name	Bone Therapeutics S.A.
Sponsor organisation address	Rue Auguste Piccard, 37, Gosselies, Belgium, 6041
Public contact	Clinical Trial Information, Bone Therapeutics S.A., regulatory@bonetherapeutics.com
Scientific contact	Clinical Trial Information, Bone Therapeutics S.A., regulatory@bonetherapeutics.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	26 March 2021
Is this the analysis of the primary completion data?	Yes
Primary completion date	18 March 2020
Global end of trial reached?	Yes
Global end of trial date	25 May 2020
Was the trial ended prematurely?	Yes

Notes:

## General information about the trial

Main objective of the trial:

The primary objective is to assess the safety and efficacy of ALLOB® in rescue interbody fusion over 12 months in patients suffering from failed lumbar fusion at one or two level(s).

Safety:

At each visit, subjects will be assessed for the potential occurrence of any AE or SAE related to the product or to the procedure, using patient open non-directive questionnaires, vital signs and laboratory measurements.

Efficacy:

The efficacy of the treatment will be evaluated at Month 12:

- Radiologically (progression of the lumbar fusion): the Fusion Score as assessed by CT-scan vs. baseline.
- Clinically (functional disability): the changes in ODI 2.1a vs. baseline.

Protection of trial subjects:

Standard-of-care treatment.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	17 February 2015
Long term follow-up planned	Yes
Long term follow-up rationale	Safety
Long term follow-up duration	24 Months
Independent data monitoring committee (IDMC) involvement?	No

Notes:

## Population of trial subjects

### Subjects enrolled per country

Country: Number of subjects enrolled	Belgium: 10
Worldwide total number of subjects	10
EEA total number of subjects	10

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)	9
From 65 to 84 years	1
85 years and over	0

## Subject disposition

### Recruitment

Recruitment details:

Recruitment period: 17 February 2015 - 17 March 2017

Country: Belgium

### Pre-assignment

Screening details:

Men and women aged 18 years or more at the time of implantation, diagnosed with failed lumbar fusion at one or two level(s) of a minimum of 15 months following the interbody fusion, and requiring a rescue surgery.

### Period 1

Period 1 title	Safety population (overall period)
Is this the baseline period?	Yes
Allocation method	Not applicable
Blinding used	Not blinded

### Arms

<b>Arm title</b>	ALLOB
Arm description: -	
Arm type	Experimental
Investigational medicinal product name	ALLOB
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Suspension for injection
Routes of administration	Intraosseous use

Dosage and administration details:

One single administration of ALLOB (4mL -  $100 \times 10^6$  cells) per lumbar level with a maximum of two treated levels

<b>Number of subjects in period 1<sup>[1]</sup></b>	ALLOB
Started	6
Completed	5
Not completed	1
Consent withdrawn by subject	1

Notes:

[1] - The number of subjects reported to be in the baseline period are not the same as the worldwide number enrolled in the trial. It is expected that these numbers will be the same.

Justification: Of the 10 patients enrolled in the study, 8 were eligible and 2 were screened failure.

Of the 8 eligible patients, 6 were treated and 2 were not due to technical issues during the implantation procedure.

The abbreviated CSR contains only the analysed data for the 6 treated patients.

## Baseline characteristics

### Reporting groups

Reporting group title	ALLOB
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Reporting group description: -

Reporting group values	ALLOB	Total	
Number of subjects	6	6	
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)	6	6	
From 65-84 years	0	0	
85 years and over	0	0	
Not recorded	0	0	
Age continuous			
Units: years			
arithmetic mean	49.4		
standard deviation	± 9.58	-	
Gender categorical			
Units: Subjects			
Female	3	3	
Male	3	3	
Not recorded	0	0	

### Subject analysis sets

Subject analysis set title	Safety population
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Subject analysis set type	Safety analysis
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Subject analysis set description:

All treated patients were included in the safety population.

Reporting group values	Safety population		
Number of subjects	6		
Age categorical			
Units: Subjects			
In utero			
Preterm newborn infants (gestational age < 37 wks)			
Newborns (0-27 days)			
Infants and toddlers (28 days-23 months)			
Children (2-11 years)			

Adolescents (12-17 years) Adults (18-64 years) From 65-84 years 85 years and over Not recorded	6		
Age continuous Units: years arithmetic mean standard deviation	49.4 ± 9.58		
Gender categorical Units: Subjects			
Female Male Not recorded	3 3		

## End points

### End points reporting groups

Reporting group title	ALLOB
Reporting group description: -	
Subject analysis set title	Safety population
Subject analysis set type	Safety analysis
Subject analysis set description:	
All treated patients were included in the safety population.	

### Primary: Changes in fusion score and ODI 2.1 vs. baseline

End point title	Changes in fusion score and ODI 2.1 vs. baseline <sup>[1]</sup>
End point description:	
End point type	Primary
End point timeframe:	
12 months	

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: The study was early terminated. The low number of subjects treated (N=6) did not allow appropriate or meaningful statistical analysis of the ALLOB® efficacy data.

End point values	ALLOB	Safety population		
Subject group type	Reporting group	Subject analysis set		
Number of subjects analysed	0 <sup>[2]</sup>	0 <sup>[3]</sup>		
Units: Patient				

Notes:

[2] - early termination of the study

[3] - early termination of the study

### Statistical analyses

No statistical analyses for this end point

## Adverse events

### Adverse events information

Timeframe for reporting adverse events:

From the treatment date till the end of long-term safety follow-up (36 months after the treatment)

Adverse event reporting additional description:

Open questionnaires, physical examination, vital signs, laboratory parameters, AEs/SAEs at each visit

Assessment type	Systematic
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### Dictionary used

Dictionary name	MedDRA
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Dictionary version	23.1
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### Reporting groups

Reporting group title	Safety population
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Reporting group description: -

<b>Serious adverse events</b>	Safety population		
Total subjects affected by serious adverse events			
subjects affected / exposed	3 / 6 (50.00%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events			
Surgical and medical procedures			
Toe operation			
subjects affected / exposed	1 / 6 (16.67%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Nervous system disorders			
Central pain syndrome			
subjects affected / exposed	1 / 6 (16.67%)		
occurrences causally related to treatment / all	0 / 2		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			
Pneumonia			
subjects affected / exposed	1 / 6 (16.67%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		

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

<b>Non-serious adverse events</b>	Safety population		
Total subjects affected by non-serious adverse events subjects affected / exposed	6 / 6 (100.00%)		
Investigations			
Blood calcium decreased subjects affected / exposed occurrences (all)	1 / 6 (16.67%) 1		
Vitamin D decreased subjects affected / exposed occurrences (all)	1 / 6 (16.67%) 1		
Injury, poisoning and procedural complications			
Fall subjects affected / exposed occurrences (all)	1 / 6 (16.67%) 1		
Patella fracture subjects affected / exposed occurrences (all)	1 / 6 (16.67%) 1		
Rib fracture subjects affected / exposed occurrences (all)	2 / 6 (33.33%) 2		
Vascular disorders			
Phlebitis subjects affected / exposed occurrences (all)	1 / 6 (16.67%) 1		
Varicose vein subjects affected / exposed occurrences (all)	1 / 6 (16.67%) 1		
Surgical and medical procedures			
Toe operation subjects affected / exposed occurrences (all)	1 / 6 (16.67%) 1		
Wedge resection toenail subjects affected / exposed occurrences (all)	1 / 6 (16.67%) 1		
Nervous system disorders			
Central pain syndrome			

<p>subjects affected / exposed occurrences (all)</p> <p>Headache subjects affected / exposed occurrences (all)</p> <p>Sciatica subjects affected / exposed occurrences (all)</p>	<p>1 / 6 (16.67%) 2</p> <p>1 / 6 (16.67%) 1</p> <p>1 / 6 (16.67%) 1</p>		
<p>General disorders and administration site conditions</p> <p>Fatigue subjects affected / exposed occurrences (all)</p> <p>Pyrexia subjects affected / exposed occurrences (all)</p>	<p>2 / 6 (33.33%) 2</p> <p>1 / 6 (16.67%) 1</p>		
<p>Ear and labyrinth disorders</p> <p>Vertigo subjects affected / exposed occurrences (all)</p>	<p>1 / 6 (16.67%) 1</p>		
<p>Gastrointestinal disorders</p> <p>Constipation subjects affected / exposed occurrences (all)</p> <p>Hiatus hernia subjects affected / exposed occurrences (all)</p> <p>Stomatitis subjects affected / exposed occurrences (all)</p>	<p>1 / 6 (16.67%) 1</p> <p>1 / 6 (16.67%) 1</p> <p>1 / 6 (16.67%) 1</p>		
<p>Musculoskeletal and connective tissue disorders</p> <p>Arthralgia subjects affected / exposed occurrences (all)</p> <p>Back pain subjects affected / exposed occurrences (all)</p>	<p>1 / 6 (16.67%) 1</p> <p>6 / 6 (100.00%) 7</p>		

Musculoskeletal pain subjects affected / exposed occurrences (all)	1 / 6 (16.67%) 1		
Neck pain subjects affected / exposed occurrences (all)	2 / 6 (33.33%) 2		
Osteoarthritis subjects affected / exposed occurrences (all)	1 / 6 (16.67%) 1		
Pain in extremity subjects affected / exposed occurrences (all)	3 / 6 (50.00%) 3		
Periarthritis subjects affected / exposed occurrences (all)	1 / 6 (16.67%) 1		
Spinal pain subjects affected / exposed occurrences (all)	1 / 6 (16.67%) 2		
Tendonitis subjects affected / exposed occurrences (all)	1 / 6 (16.67%) 2		
Infections and infestations			
Bronchitis subjects affected / exposed occurrences (all)	2 / 6 (33.33%) 6		
Infection subjects affected / exposed occurrences (all)	1 / 6 (16.67%) 1		
Pneumonia subjects affected / exposed occurrences (all)	1 / 6 (16.67%) 2		
Urinary tract infection subjects affected / exposed occurrences (all)	1 / 6 (16.67%) 1		

## **More information**

### **Substantial protocol amendments (globally)**

Were there any global substantial amendments to the protocol? No

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### **Interruptions (globally)**

Were there any global interruptions to the trial? No

### **Limitations and caveats**

None reported