Clinical trial results:
A Multicenter, Randomized, Phase III Registration Trial of Transplantation of NiCord®, Ex Vivo Expanded, Umbilical Cord Blood-derived, Stem and Progenitor Cells, versus Unmanipulated Umbilical Cord Blood for Patients with Hematological Malignancies

Summary

EudraCT number	2016-000704-28
Trial protocol	ES NL GB IT PT FR
Global end of trial date	07 February 2025

Results information

Result version number	v3 (current)
This version publication date	31 January 2026
First version publication date	30 April 2022
Version creation reason	• New data added to full data set Long term follow-up sub-study results available
Summary attachment (see zip file)	Omidubicel Phase 3 Case Study Report 23JAN2022 (P0501_CSR-Omidubicel Phase III_Final_23JAN2022.pdf) LTF CSR Addendum (P0501_LTF_CSR_Addendum_V1.0_07 Dec 2025.pdf)

Trial information

Trial identification

Sponsor protocol code	GCP#05.01.020

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT02730299
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Gamida Cell Ltd.
Sponsor organisation address	5 Nahum Hatzfedi Street, Jerusalem, Israel, 91240
Public contact	Clinical Department, Gamida Cell Ltd, 972 26595666, stuart@gamida-cell.com
Scientific contact	Clinical Department, Gamida Cell Ltd, 023730649 26595666, stuart@gamida-cell.com

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	Yes
EMA paediatric investigation plan number(s)	EMEA-001913-PIP02-18
Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial?	No
Does article 46 of REGULATION (EC) No	No

1901/2006 apply to this trial?	

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	27 March 2025
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	07 February 2025
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The overall study objective is to compare the safety and efficacy of NiCord single ex-vivo expanded cord blood unit transplantation to unmanipulated cord blood unit transplantation in patients with hematological malignancies following conditioning therapy

Protection of trial subjects:

Study records that identify subjects are kept confidential as required by national and state law. National and State Privacy Regulations provide safeguards for privacy, security, and authorized access. Except when required by law, subjects are not identified by name, address, telephone number, or any other direct personal identifier in study records disclosed outside of hospitals / institutions. Subjects are assigned a unique study number. The information linking subjects' name to the study number is stored in a database on a secure server. No identifiable subject information will be given to researchers, nor will it be published or presented at scientific meetings.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	20 December 2016
Long term follow-up planned	Yes
Long term follow-up rationale	Safety, Efficacy
Long term follow-up duration	4 Years
Independent data monitoring committee (IDMC) involvement?	Yes

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Netherlands: 6
Country: Number of subjects enrolled	Spain: 15
Country: Number of subjects enrolled	United Kingdom: 2
Country: Number of subjects enrolled	United States: 87
Country: Number of subjects enrolled	Singapore: 9
Country: Number of subjects enrolled	Brazil: 4
Country: Number of subjects enrolled	Israel: 2
Worldwide total number of subjects	125
EEA total number of subjects	21

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)	14
Adults (18-64 years)	111
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

125 patients were randomized at 33 centers in 7 countries, 87 (70%) patients were enrolled in United States, 15 (12%) from Spain, 9 (7%) from Singapore, and six (5%) from the Netherlands. All other countries contributed <5% of patients each. Patient characteristics was well balanced for age, disease, disease risk and specific site supportive care.

Pre-assignment

Screening details:

Subjects aged 12-65 years with a diagnosis of hematological malignancy and are candidates for unrelated cord blood (CB) transplantation with qualifying human leukocyte antigen (HLA)-matched unmanipulated CBUs with sufficient pre-cryopreserved total nucleated cell count and dose, and CD34+ cell dose, were included in the study.

Period 1

Period 1 title	Arms > Overall Trial
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Not blinded

Blinding implementation details:

Sponsor maintained blinding of patient treatment assignment (including aggregate patient information) to minimize bias.
Data Management Committee received unblinded reports and made recommendations to CRO for distribution to sponsor and clinical sites as requested. Selected CRO staff, all site research personnel were unblinded so as to evaluate safety and efficacy outcomes, and patients also knew their treatment assignments.

Arms

Are arms mutually exclusive?	Yes
Arm title	Omidubicel

Arm description:

Omidubicel (NiCord®) is a cryopreserved stem/progenitor cell based product comprised of:
1. ex vivo expanded, umbilical cord blood-derived hematopoietic CD34+ progenitor cells (omidubicel cultured fraction (CF))
2. the non-cultured cell fraction of the same Cord Blood Unit (CBU) (omidubicel Non-cultured Fraction (NF)) consisting of mature myeloid and lymphoid cells.
Both fractions, i.e. omidubicel CF and NiCord® NF, will be kept frozen until they are thawed and infused on the day of transplantation.

Arm type	Experimental
Investigational medicinal product name	Omidubicel
Investigational medicinal product code	
Other name	NiCord
Pharmaceutical forms	Dispersion for infusion
Routes of administration	Intravenous use

Dosage and administration details:

Both fractions, omidubicel Cultured Fraction (CF) and omidubicel Non-cultured Fraction (NF), will be kept frozen until they are thawed and infused on the day of transplantation.
The final volume of omidubicel CF after thawing and reconstitution with a prepared Infusion Solution (IS) is 100 ml.
The final volume of omidubicel NF after thawing and reconstitution with IS is 50 ml.
omidubicel CF is infused first, followed immediately (up to 1 hour) by omidubicel NF and infused via the patient's central venous catheter.
The infusion is given by gravity without additional support. Infusion of omidubicel CF and omidubicel NF target rate of 5 cc/kg/hr with a maximal rate of 10 cc/kg/hr.

Arm title	Unmanipulated Cord Blood Transplant
Arm description: Unmanipulated cord blood unit(s)	
Arm type	No intervention
No investigational medicinal product assigned in this arm	

Number of subjects in period 1	Omidubicel	Unmanipulated Cord Blood Transplant
Started	62	63
Completed	59	58
Not completed	3	5
Physician decision	3	3
Consent withdrawn by subject	-	2

Period 2	
Period 2 title	Long-term Follow-up
Is this the baseline period?	No
Allocation method	Not applicable
Blinding used	Not blinded
Arms	
Are arms mutually exclusive?	Yes
Arm title	Omidubicel LTF
Arm description: Patients who received Omidubicel and enrolled into the Long-Term Follow-up optional sub-study	
Arm type	No intervention
No investigational medicinal product assigned in this arm	
Arm title	Unmanipulated CBU LTF
Arm description: Patients who received unmanipulated CBU(s) and enrolled into the Long-Term Follow-up optional sub-study	
Arm type	No intervention
No investigational medicinal product assigned in this arm	

Number of subjects in period 2[1]	Omidubicel LTF	Unmanipulated CBU LTF
Started	39	32
Completed	34	28
Not completed	5	4
Consent withdrawn by subject	2	-
Withdrawn by Sponsor	-	1
Lost to follow-up	3	3

Notes:

[1] - The number of subjects starting the period is not consistent with the number completing the preceding period. It is expected the number of subjects starting the subsequent period will be the same as the number completing the preceding period.
Justification: The subjects starting the period were those who were transplanted, alive at Year 1 post-transplant (end of main study) and provided consent to participate in the optional long-term follow-up sub-study

Baseline characteristics

Reporting groups	
Reporting group title	Omidubicel
Reporting group description:	
Omidubicel (NiCord®) is a cryopreserved stem/progenitor cell based product comprised of: 1. ex vivo expanded, umbilical cord blood-derived hematopoietic CD34+ progenitor cells (omidubicel cultured fraction (CF)) 2. the non-cultured cell fraction of the same Cord Blood Unit (CBU) (omidubicel Non-cultured Fraction (NF)) consisting of mature myeloid and lymphoid cells. Both fractions, i.e. omidubicel CF and NiCord® NF, will be kept frozen until they are thawed and infused on the day of transplantation.	

Reporting group title	Unmanipulated Cord Blood Transplant
Reporting group description:	
Unmanipulated cord blood unit(s)	

Reporting group values	Omidubicel	Unmanipulated Cord Blood Transplant	Total
Number of subjects	62	63	125
Age categorical			
Subjects must have been 12-65 years of age at the time of randomization			
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			
Subjects must have been 12-65 years of age at the time of randomization			
Units: years			
median	40	43	
full range (min-max)	13 to 62	13 to 65	-
Gender categorical			
Units: Subjects			
Female	30	23	53
Male	32	40	72

End points

End points reporting groups

Reporting group title	Omidubicel
Reporting group description:	
Omidubicel (NiCord®) is a cryopreserved stem/progenitor cell based product comprised of: 1. ex vivo expanded, umbilical cord blood-derived hematopoietic CD34+ progenitor cells (omidubicel cultured fraction (CF)) 2. the non-cultured cell fraction of the same Cord Blood Unit (CBU) (omidubicel Non-cultured Fraction (NF)) consisting of mature myeloid and lymphoid cells. Both fractions, i.e. omidubicel CF and NiCord® NF, will be kept frozen until they are thawed and infused on the day of transplantation.	

Reporting group title	Unmanipulated Cord Blood Transplant
Reporting group description:	
Unmanipulated cord blood unit(s)	

Reporting group title	Omidubicel LTF
Reporting group description:	
Patients who received Omidubicel and enrolled into the Long-Term Follow-up optional sub-study	

Reporting group title	Unmanipulated CBU LTF
Reporting group description:	
Patients who received unmanipulated CBU(s) and enrolled into the Long-Term Follow-up optional sub-study	

Primary: Time to Neutrophil Engraftment

End point title	Time to Neutrophil Engraftment
End point description:	
The time to engraftment of neutrophils >500/µl was defined as per CIBMTR standards, requiring donor chimerism for neutrophil engraftment.	
End point type	Primary
End point timeframe:	
Up to 42 days post-transplantation	

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	62[1]	63[2]		
Units: Days				
days	12	22		

Notes:

[1] - The number of patients randomized to the NiCord Intent to Treat group was 62

[2] - The number of patients randomized to the Unmanipulated CB Transplant Intent to Treat group was 63

Statistical analyses

Statistical analysis title	Time to neutrophil engraftment following transplan

Statistical analysis description:

Time to neutrophil engraftment (NE) following transplantation, defined as achieving an ANC ≥ 0.5 ×109/L on 3 consecutive measurements on different days with subsequent donor chimerism (≤10% host cells by peripheral blood (PB) chimerism or BM chimerism if PB chimerism not available). Moreover, the day of NE was designated as the first of the three consecutive measurements and must have occurred on or before 42 days post-transplantation and prior to infusion of any additional stem cell product.

Comparison groups	Omidubicel v Unmanipulated Cord Blood Transplant
Number of subjects included in analysis	125
Analysis specification	Pre-specified
Analysis type	other[3]
P-value	≤ 0.001
Method	Wilcoxon (Mann-Whitney)
Parameter estimate	Hazard ratio (HR)

Notes:

[3] - The primary endpoint was time from transplant to neutrophil engraftment. The primary analysis for comparing time to engraftment between the two treatment groups was based on the Mann-Whitney test statistic.
This test was shown to be equivalent to using a Gehan-Wilcoxon alternative in a time-to-event analysis with competing risks.

Secondary: Incidence of Grade 2/3 bacterial or invasive fungal infections

End point title	Incidence of Grade 2/3 bacterial or invasive fungal infections

End point description:

Incidence of First Bacterial Infection Grades 2-3 or Invasive Fungal Infection by 100 Days following Transplantation for the Intent to Treat Population

End point type	Secondary

End point timeframe:

By 100 days post-transplant

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	62[4]	63[5]		
Units: Subjects				
Subjects	24	38		

Notes:

[4] - The number of patients randomized to the NiCord Intent to Treat group was 62

[5] - The number of patients randomized to the Unmanipulated CB Transplant Intent to Treat group was 63

Statistical analyses

No statistical analyses for this end point

Secondary: Days alive and out of hospital

End point title	Days alive and out of hospital

End point description:

Days alive and out of hospital in the first 100 Days post-transplantation for the Intent to Treat Population

End point type	Secondary

End point timeframe:

The first 100 Days post-transplantation

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	62[6]	63[7]		
Units: Days				
median (full range (min-max))				
Days	60.5 (0.1 to 89.0)	48.0 (0.1 to 79.0)		

Notes:

[6] - The number of patients randomized to the NiCord Intent to Treat group was 62

[7] - The number of patients randomized to the Unmanipulated CB Transplant Intent to Treat group was 63

Statistical analyses

No statistical analyses for this end point

Secondary: Platelet Engraftment by 42 days following transplantation

End point title	Platelet Engraftment by 42 days following transplantation

End point description:

Platelet engraftment defined as the first day of a minimum of three consecutive measurements on different days such that the patient has achieved a platelet count > 20 × 10^9/L with no platelet transfusions during the preceding seven days (counting day of engraftment as one of the preceding seven days) for the Intent to Treat Population

End point type	Secondary

End point timeframe:

By 42 days post-transplantation

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	62[8]	63[9]		
Units: Subject				
Subjects	34	22		

Notes:

[8] - The number of patients randomized to the NiCord Intent to Treat group was 62

[9] - The number of patients randomized to the Unmanipulated CB Transplant Intent to Treat group was 63

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Non-relapse mortality by 210 Days following randomization

End point title	Non-relapse mortality by 210 Days following randomization

End point description:

Non-relapse mortality by 100 Days following transplant for the Intent to Treat population

End point type	Other pre-specified

End point timeframe:

100 Days following transplant

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	62	63		
Units: Subjects				
Subjects	6	8		

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Duration of primary hospitalization

End point title	Duration of primary hospitalization

End point description:

Length of time of Duration of primary hospitalization in days for the Transplanted Population

End point type	Other pre-specified

End point timeframe:

Length of time of Duration of primary hospitalization in days

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	62	63		
Units: Days				
Days	27	35		

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Overall survival at 210 Days following randomization

End point title	Overall survival at 210 Days following randomization

End point description:

Overall survival at 210 Days following randomization for the Intent to Treat population

End point type	Other pre-specified

End point timeframe:

At 210 Days following ramdomization

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	62	63		
Units: Number of deaths				
Deaths	10	20		

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Disease-free survival at 15 Months following randomization

End point title	Disease-free survival at 15 Months following randomization

End point description:

Disease-free survival at 15 Months following randomization for the Intent to Treat Population

End point type	Other pre-specified

End point timeframe:

15 Months following randomization

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	62	63		
Units: Number of deaths	23	28		

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Acute GvHD Grade II-IV by 100 Days following transplantation

End point title	Acute GvHD Grade II-IV by 100 Days following transplantation

End point description:

Acute GvHD Grade II-IV by 100 Days following transplantation

End point type	Other pre-specified

End point timeframe:

By 100 Days following transplantation

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	59[10]	58[11]		
Units: Number of patients				
Patients	32	25		

Notes:

[10] - Number of patients transplanted with omidubicel

[11] - Number of patients transplanted with unmanipulated cord blood transplant

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Acute GvHD Grade III-IV by 100 Days following transplantation

End point title	Acute GvHD Grade III-IV by 100 Days following transplantation

End point description:

Acute GvHD Grade III-IV by 100 Days following transplantation for Transplanted Populations

End point type	Other pre-specified

End point timeframe:

By 100 Days following transplantation

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	59[12]	58[13]		
Units: Number of Patients				
Patients	8	12		

Notes:

[12] - Number of patients transplanted with omidubicel product

[13] - Number of patients transplanted with unmanipulated cord blood unit

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Chronic GvHD by 180 Days following transplantation

End point title	Chronic GvHD by 180 Days following transplantation

End point description:

Chronic GvHD (mild/moderate/severe) by 180 Days following transplantation for transplanted population

End point type	Other pre-specified

End point timeframe:

By 180 Days following transplantation

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	59[14]	58[15]		
Units: Number of Patients				
Patients	5	6		

Notes:

[14] - Number of patients transplanted with omidubicel product

[15] - Number of patients transplanted with unmanipulated cord blood unit(s)

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Chronic GVHD by 1 year following transplantation

End point title	Chronic GVHD by 1 year following transplantation

End point description:

Chronic GVHD by 1 year following transplantation for transplanted populations

End point type	Other pre-specified

End point timeframe:

By 1 year following transplantation

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	59[16]	58[17]		
Units: Number of Patients				
Patients	18	15		

Notes:

[16] - Number of patients transplanted with omidubicel product

[17] - Number of patients transplanted with unmanipulated cord blood units

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Secondary graft failure by one year following transplantation

End point title	Secondary graft failure by one year following transplantation

End point description:

Secondary graft failure by one year following transplantation for transplanted populations

End point type	Other pre-specified

End point timeframe:

By one year following transplantation

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	59[18]	58[19]		
Units: Number of patients				
Patients	1	0		

Notes:

[18] - Number of patients transplanted with omidubicel product

[19] - Number of patients transplanted with unmanipulated cord blood units

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Grade 3 viral infections by 180 Days following transplantation

End point title	Grade 3 viral infections by 180 Days following transplantation

End point description:

Grade 3 viral infections by 180 Days after transplantation for intent to treat populations

End point type	Other pre-specified

End point timeframe:

By 180 Days following transplantation

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	62	63		
Units: Number of Patients				
Patients	4	14		

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Grade 3 viral infections by 1 year following transplantation

End point title	Grade 3 viral infections by 1 year following transplantation

End point description:

Grade 3 viral infections by 1 year following transplantation for the Intent to Treat populations

End point type	Other pre-specified

End point timeframe:

By 1 year after transplantation

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	62	63		
Units: Number of patients				
patients	5	17		

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Relapse by 15 Months following randomization

End point title	Relapse by 15 Months following randomization
End point description:	
Relapse by 15 Months following randomization for Intent to Treat populations	
End point type	Other pre-specified
End point timeframe:	
By 15 Months following randomization	

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	62	63		
Units: number of patients				
Patients	14	10		

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Neutrophil engraftment by 16 Days following transplantation

End point title	Neutrophil engraftment by 16 Days following transplantation
End point description:	
Neutrophil engraftment by 16 Days following transplantation for Intent to Treat Population	
End point type	Other pre-specified
End point timeframe:	
BY 16 Days following transplantation	

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	62	63		
Units: percent				
number (not applicable)				
Percent	68	24		

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Neutrophil engraftment by 42 Days following transplantation

End point title	Neutrophil engraftment by 42 Days following transplantation
End point description:	
Neutrophil engraftment by 42 Days following transplantation for Intent to Treat Population	
End point type	Other pre-specified
End point timeframe:	
By 42 Days following transplantation	

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	62	63		
Units: percent				
number (not applicable)	89	84		

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Time to Platelet Engraftment by Day 180 following Transplant

End point title	Time to Platelet Engraftment by Day 180 following Transplant
End point description:	
Time to Platelet Engraftment by Day 180 following Transplant among Engrafters (Platelet Engrafting Population)	
End point type	Other pre-specified
End point timeframe:	
By Day 180 following transplantation	

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	44[20]	42[21]		
Units: day				
median (full range (min-max))	34 (21 to 180)	42 (21 to 120)		

Notes:

[20] - Number of patients with Platelet Engraftment by Day 180 for patients treated with omidubicel product
[21] - Number of patients with Platelet Engraftment by Day 180 for patients treated with unmanipulated CB

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Non-relapse mortality by 130 Days following randomization

End point title	Non-relapse mortality by 130 Days following randomization

End point description:

Non-relapse mortality by 130 Days following randomization for the Intent to Treat Populations

End point type	Other pre-specified

End point timeframe:

By 130 Days following randomization

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	62	63		
Units: Number of subjects with events				
Subjects	4	9		

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Non-relapse mortality by 15 months following randomization

End point title	Non-relapse mortality by 15 months following randomization

End point description:

Non-relapse mortality by 15 months following randomization for the Intent to Treat Populations

End point type	Other pre-specified

End point timeframe:

By 15 months following randomization

End point values	Omidubicel	Unmanipulated Cord Blood Transplant		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	62	63		
Units: Number of subjects with events				
Subjects	9	18		

Statistical analyses

No statistical analyses for this end point

Other pre-specified: LTF Chimerism

End point title	LTF Chimerism
End point description:	
Kaplan Meier probability of donor chimerism <95%	
End point type	Other pre-specified
End point timeframe:	
By 5 Years post-transplant	

End point values	Omidubicel LTF	Unmanipulated CBU LTF		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	39	32		
Units: Kaplan Meier probability				
number (not applicable)	0.97	0.91		

Statistical analyses

No statistical analyses for this end point

Other pre-specified: LTF Overall Survival

End point title	LTF Overall Survival
End point description:	
Kaplan Meier probability of overall survival	
End point type	Other pre-specified
End point timeframe:	
By 5 years post-transplant	

End point values	Omidubicel LTF	Unmanipulated CBU LTF		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	39	32		
Units: Kaplan Meier Probability				
number (not applicable)	0.82	0.86		

Statistical analyses

No statistical analyses for this end point

Other pre-specified: LTF Disease progression/Relapse

End point title	LTF Disease progression/Relapse
End point description: Number of patients with relapse during the long-term follow-up period	
End point type	Other pre-specified
End point timeframe: By 5 years post-transplant	

End point values	Omidubicel LTF	Unmanipulated CBU LTF		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	39	32		
Units: Number of patients	2	1		

Statistical analyses

No statistical analyses for this end point

Other pre-specified: LTF Chronic GvHD

End point title	LTF Chronic GvHD
End point description: Cumulative Incidence of Chronic GvHD	
End point type	Other pre-specified
End point timeframe: By 5 years post-transplant	

End point values	Omidubicel LTF	Unmanipulated CBU LTF		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	39	32		
Units: Cumulative Incidence of Chronic GvHD				
number (not applicable)	0.56	0.44		

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

1 year

Adverse event reporting additional description:

Treatment Emergent Serious Adverse Event (SAEs) Reported in at least 3% in either group of the Safety Population

Treatment Emergent Adverse Events (AEs) with Severity Grades 3-5 Reported in at least 3% in either group of the Safety Population

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	23

Reporting groups

Reporting group title	Unmanipulated CBUs

Reporting group description:

Unmanipulated cord blood unit(s)

Reporting group title	Omidubicel

Reporting group description:

omidubicel is a cryopreserved stem/progenitor cell based product comprised of:
1. ex vivo expanded, umbilical cord blood-derived hematopoietic CD34+ progenitor cells (cultured fraction (CF)
2. the non-cultured cell fraction of the same Cord Blood Unit (CBU) Non-cultured Fraction (NF) consisting of mature myeloid and lymphoid cells.

Serious adverse events	Unmanipulated CBUs	Omidubicel	
Total subjects affected by serious adverse events			
subjects affected / exposed	51 / 56 (91.07%)	47 / 52 (90.38%)	
number of deaths (all causes)	25	17	
number of deaths resulting from adverse events	25	17	
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Acute lymphocytic leukaemia recurrent	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	0 / 56 (0.00%)	3 / 52 (5.77%)	
occurrences causally related to treatment / all	0 / 0	0 / 3	
deaths causally related to treatment / all	0 / 0	0 / 1	
Leukaemia recurrent	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	6 / 56 (10.71%)	4 / 52 (7.69%)	
occurrences causally related to treatment / all	0 / 6	0 / 4	
deaths causally related to treatment / all	0 / 4	0 / 1	

Injury, poisoning and procedural complications			
Femoral neck fracture	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	0 / 56 (0.00%)	2 / 52 (3.85%)	
occurrences causally related to treatment / all	0 / 0	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Transplant failure	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	5 / 56 (8.93%)	3 / 52 (5.77%)	
occurrences causally related to treatment / all	4 / 5	2 / 3	
deaths causally related to treatment / all	0 / 0	0 / 0	
Nervous system disorders			
Subarachnoid haemorrhage	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	0 / 56 (0.00%)	2 / 52 (3.85%)	
occurrences causally related to treatment / all	0 / 0	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Blood and lymphatic system disorders			
Febrile Neutropenia	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	0 / 56 (0.00%)	3 / 52 (5.77%)	
occurrences causally related to treatment / all	0 / 0	0 / 3	
deaths causally related to treatment / all	0 / 0	0 / 0	
Thrombotic microangiopathy	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	4 / 56 (7.14%)	1 / 52 (1.92%)	
occurrences causally related to treatment / all	0 / 4	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 1	
General disorders and administration site conditions			
Multiple organ dysfunction syndrome	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	2 / 56 (3.57%)	0 / 52 (0.00%)	
occurrences causally related to treatment / all	0 / 2	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Pyrexia	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	3 / 56 (5.36%)	5 / 52 (9.62%)	
occurrences causally related to treatment / all	0 / 3	0 / 5	
deaths causally related to treatment / all	0 / 0	0 / 0	

Immune system disorders			
Acute graft versus host disease	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	2 / 56 (3.57%)	5 / 52 (9.62%)	
occurrences causally related to treatment / all	1 / 2	3 / 6	
deaths causally related to treatment / all	0 / 0	1 / 1	
Graft versus host disease			
subjects affected / exposed	5 / 56 (8.93%)	4 / 52 (7.69%)	
occurrences causally related to treatment / all	4 / 6	0 / 4	
deaths causally related to treatment / all	2 / 2	0 / 0	
Graft versus host disease in gastrointestinal tract	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	6 / 56 (10.71%)	5 / 52 (9.62%)	
occurrences causally related to treatment / all	6 / 6	5 / 5	
deaths causally related to treatment / all	1 / 1	2 / 2	
Graft versus host disease in skin	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	0 / 56 (0.00%)	2 / 52 (3.85%)	
occurrences causally related to treatment / all	0 / 0	2 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Gastrointestinal disorders			
Abdominal pain	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	2 / 56 (3.57%)	1 / 52 (1.92%)	
occurrences causally related to treatment / all	0 / 2	1 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Diarrhoea	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	3 / 56 (5.36%)	1 / 52 (1.92%)	
occurrences causally related to treatment / all	0 / 3	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Gastrointestinal haemorrhage	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	2 / 56 (3.57%)	0 / 52 (0.00%)	
occurrences causally related to treatment / all	1 / 2	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hepatobiliary disorders			
Veno-occlusive liver disease	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		

subjects affected / exposed	4 / 56 (7.14%)	2 / 52 (3.85%)	
occurrences causally related to treatment / all	0 / 4	0 / 2	
deaths causally related to treatment / all	0 / 1	0 / 1	
Respiratory, thoracic and mediastinal disorders			
Respiratory failure	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	5 / 56 (8.93%)	2 / 52 (3.85%)	
occurrences causally related to treatment / all	0 / 5	0 / 2	
deaths causally related to treatment / all	0 / 3	0 / 0	
Acute respiratory distress syndrome	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	2 / 56 (3.57%)	0 / 52 (0.00%)	
occurrences causally related to treatment / all	1 / 2	0 / 0	
deaths causally related to treatment / all	0 / 1	0 / 0	
Acute respiratory failure	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	2 / 56 (3.57%)	0 / 52 (0.00%)	
occurrences causally related to treatment / all	0 / 2	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Renal and urinary disorders			
Acute kidney injury	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	2 / 56 (3.57%)	5 / 52 (9.62%)	
occurrences causally related to treatment / all	0 / 2	0 / 5	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cystitis haemorrhagic	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	3 / 56 (5.36%)	0 / 52 (0.00%)	
occurrences causally related to treatment / all	0 / 3	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Infections and infestations			
Bacteraemia	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	2 / 56 (3.57%)	0 / 52 (0.00%)	
occurrences causally related to treatment / all	0 / 2	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cytomegalovirus infection reactivation	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		

subjects affected / exposed	1 / 56 (1.79%)	2 / 52 (3.85%)	
occurrences causally related to treatment / all	0 / 1	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cytomegalovirus viraemia	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	1 / 56 (1.79%)	2 / 52 (3.85%)	
occurrences causally related to treatment / all	0 / 1	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Herpes zoster	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	0 / 56 (0.00%)	2 / 52 (3.85%)	
occurrences causally related to treatment / all	0 / 0	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Human herpesvirus 6 infection	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	1 / 56 (1.79%)	4 / 52 (7.69%)	
occurrences causally related to treatment / all	0 / 1	0 / 4	
deaths causally related to treatment / all	0 / 0	0 / 0	
Pneumonia	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	6 / 56 (10.71%)	4 / 52 (7.69%)	
occurrences causally related to treatment / all	0 / 8	0 / 7	
deaths causally related to treatment / all	0 / 0	0 / 0	
Sepsis	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	1 / 56 (1.79%)	3 / 52 (5.77%)	
occurrences causally related to treatment / all	0 / 1	0 / 3	
deaths causally related to treatment / all	0 / 0	0 / 2	
Septic shock	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	8 / 56 (14.29%)	1 / 52 (1.92%)	
occurrences causally related to treatment / all	0 / 9	0 / 1	
deaths causally related to treatment / all	0 / 6	0 / 0	
Staphylococcal bacteraemia	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	0 / 56 (0.00%)	2 / 52 (3.85%)	
occurrences causally related to treatment / all	0 / 0	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	

Upper respiratory tract infection	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	2 / 56 (3.57%)	0 / 52 (0.00%)	
occurrences causally related to treatment / all	0 / 2	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Viral infection	Additional description: Treatment Emergent Serious Adverse Event Reported in at least 3% in either group of the Safety Population		
subjects affected / exposed	0 / 56 (0.00%)	2 / 52 (3.85%)	
occurrences causally related to treatment / all	0 / 0	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	

Frequency threshold for reporting non-serious adverse events: 3 %

Non-serious adverse events	Unmanipulated CBUs	Omidubicel	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	56 / 56 (100.00%)	52 / 52 (100.00%)	
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Acute lymphocytic leukaemia recurrent			
subjects affected / exposed	0 / 56 (0.00%)	3 / 52 (5.77%)	
occurrences (all)	0	3	
Leukaemia recurrent			
subjects affected / exposed	5 / 56 (8.93%)	4 / 52 (7.69%)	
occurrences (all)	5	4	
Vascular disorders			
Haemorrhage			
subjects affected / exposed	2 / 56 (3.57%)	1 / 52 (1.92%)	
occurrences (all)	2	1	
Hypertension			
subjects affected / exposed	21 / 56 (37.50%)	13 / 52 (25.00%)	
occurrences (all)	25	16	
Hypotension			
subjects affected / exposed	5 / 56 (8.93%)	2 / 52 (3.85%)	
occurrences (all)	5	2	
General disorders and administration site conditions			
Asthenia	Additional description: Treatment-Emergent AEs with Severity Grades 3-5 Reported in at least 3% in either group of the Safety Population (SP)		

subjects affected / exposed	11 / 56 (19.64%)	2 / 52 (3.85%)	
occurrences (all)	13	3	
Edema	Additional description: Treatment-Emergent AEs with Severity Grades 3-5 Reported in at least 3% in either group of the Safety Population (SP)		
subjects affected / exposed	4 / 56 (7.14%)	1 / 52 (1.92%)	
occurrences (all)	4	1	
Mucosal inflammation	Additional description: Treatment-Emergent AEs with Severity Grades 3-5 Reported in at least 3% in either group of the Safety Population (SP)		
subjects affected / exposed	19 / 56 (33.93%)	16 / 52 (30.77%)	
occurrences (all)	19	17	
Multiple organ dysfunction syndrome	Additional description: Treatment-Emergent AEs with Severity Grades 3-5 Reported in at least 3% in either group of the Safety Population (SP)		
subjects affected / exposed	2 / 56 (3.57%)	0 / 52 (0.00%)	
occurrences (all)	2	0	
Pain	Additional description: Treatment-Emergent AEs with Severity Grades 3-5 Reported in at least 3% in either group of the Safety Population (SP)		
subjects affected / exposed	10 / 56 (17.86%)	17 / 52 (32.69%)	
occurrences (all)	12	18	
Pyrexia	Additional description: Treatment-Emergent AEs with Severity Grades 3-5 Reported in at least 3% in either group of the Safety Population (SP)		
subjects affected / exposed	6 / 56 (10.71%)	1 / 52 (1.92%)	
occurrences (all)	6	1	
Immune system disorders			
Graft-versus-host disease in gastrointestinal tract			
subjects affected / exposed	6 / 56 (10.71%)	5 / 52 (9.62%)	
occurrences (all)	6	5	
Graft-versus-host disease			
subjects affected / exposed	5 / 56 (8.93%)	3 / 52 (5.77%)	
occurrences (all)	6	3	
Acute Graft-versus-host disease			
subjects affected / exposed	1 / 56 (1.79%)	4 / 52 (7.69%)	
occurrences (all)	1	5	
Respiratory, thoracic and mediastinal disorders			
Acute respiratory distress syndrome			
subjects affected / exposed	2 / 56 (3.57%)	0 / 52 (0.00%)	
occurrences (all)	2	0	
Acute respiratory failure			
subjects affected / exposed	2 / 56 (3.57%)	0 / 52 (0.00%)	
occurrences (all)	2	0	

Dyspnoea			
subjects affected / exposed	9 / 56 (16.07%)	4 / 52 (7.69%)	
occurrences (all)	10	5	
Epistaxis			
subjects affected / exposed	4 / 56 (7.14%)	3 / 52 (5.77%)	
occurrences (all)	4	3	
Hypoxia			
subjects affected / exposed	13 / 56 (23.21%)	5 / 52 (9.62%)	
occurrences (all)	18	5	
Respiratory failure			
subjects affected / exposed	5 / 56 (8.93%)	2 / 52 (3.85%)	
occurrences (all)	5	2	
Psychiatric disorders			
Anxiety			
subjects affected / exposed	3 / 56 (5.36%)	1 / 52 (1.92%)	
occurrences (all)	5	1	
Depression			
subjects affected / exposed	2 / 56 (3.57%)	0 / 52 (0.00%)	
occurrences (all)	2	0	
Insomnia			
subjects affected / exposed	2 / 56 (3.57%)	1 / 52 (1.92%)	
occurrences (all)	2	1	
Investigations			
Transaminases increased			
subjects affected / exposed	1 / 56 (1.79%)	4 / 52 (7.69%)	
occurrences (all)	1	4	
weight decreased			
subjects affected / exposed	0 / 56 (0.00%)	3 / 52 (5.77%)	
occurrences (all)	0	3	
Injury, poisoning and procedural complications			
Femoral neck fracture			
subjects affected / exposed	0 / 56 (0.00%)	2 / 52 (3.85%)	
occurrences (all)	0	2	
Transplant failure			
subjects affected / exposed	5 / 56 (8.93%)	3 / 52 (5.77%)	
occurrences (all)	5	3	

Nervous system disorders			
Syncope			
subjects affected / exposed	2 / 56 (3.57%)	3 / 52 (5.77%)	
occurrences (all)	2	3	
Blood and lymphatic system disorders			
Febrile neutropenia	Additional description: Treatment-Emergent AEs with Severity Grades 3-5 Reported in at least 3% in either group of the Safety Population (SP)		
subjects affected / exposed	4 / 56 (7.14%)	4 / 52 (7.69%)	
occurrences (all)	8	4	
Thrombotic microangiopathy	Additional description: Treatment-Emergent AEs with Severity Grades 3-5 Reported in at least 3% in either group of the Safety Population (SP)		
subjects affected / exposed	3 / 56 (5.36%)	1 / 52 (1.92%)	
occurrences (all)	3	1	
Gastrointestinal disorders			
Diarrhoea	Additional description: Treatment-Emergent AEs with Severity Grades 3-5 Reported in at least 3% in either group of the Safety Population (SP)		
subjects affected / exposed	3 / 56 (5.36%)	1 / 52 (1.92%)	
occurrences (all)	3	1	
Dysphagia	Additional description: Treatment-Emergent AEs with Severity Grades 3-5 Reported in at least 3% in either group of the Safety Population (SP)		
subjects affected / exposed	7 / 56 (12.50%)	6 / 52 (11.54%)	
occurrences (all)	8	7	
Gastrointestinal haemorrhage	Additional description: Treatment-Emergent AEs with Severity Grades 3-5 Reported in at least 3% in either group of the Safety Population (SP)		
subjects affected / exposed	3 / 56 (5.36%)	0 / 52 (0.00%)	
occurrences (all)	3	0	
Gastrointestinal toxicity	Additional description: Treatment-Emergent AEs with Severity Grades 3-5 Reported in at least 3% in either group of the Safety Population (SP)		
subjects affected / exposed	19 / 56 (33.93%)	10 / 52 (19.23%)	
occurrences (all)	22	12	
Vomiting	Additional description: Treatment-Emergent AEs with Severity Grades 3-5 Reported in at least 3% in either group of the Safety Population (SP)		
subjects affected / exposed	6 / 56 (10.71%)	1 / 52 (1.92%)	
occurrences (all)	6	1	
Hepatobiliary disorders			
veno-occlusive liver disease	Additional description: Treatment-Emergent AEs with Severity Grades 3-5 Reported in at least 3% in either group of the Safety Population (SP)		
subjects affected / exposed	4 / 56 (7.14%)	2 / 52 (3.85%)	
occurrences (all)	4	2	
Renal and urinary disorders			

Acute kidney injury			
subjects affected / exposed	3 / 56 (5.36%)	4 / 52 (7.69%)	
occurrences (all)	3	4	
Cystitis haemorrhagic			
subjects affected / exposed	2 / 56 (3.57%)	0 / 52 (0.00%)	
occurrences (all)	2	0	
Musculoskeletal and connective tissue disorders			
Muscular weakness			
subjects affected / exposed	2 / 56 (3.57%)	1 / 52 (1.92%)	
occurrences (all)	2	1	
Infections and infestations			
Cystitis			
subjects affected / exposed	2 / 56 (3.57%)	4 / 52 (7.69%)	
occurrences (all)	2	4	
Cytomegalovirus viraemia			
subjects affected / exposed	1 / 56 (1.79%)	2 / 52 (3.85%)	
occurrences (all)	1	2	
Herpes zoster			
subjects affected / exposed	0 / 56 (0.00%)	2 / 52 (3.85%)	
occurrences (all)	0	2	
Human herpesvirus 6 infection			
subjects affected / exposed	0 / 56 (0.00%)	4 / 52 (7.69%)	
occurrences (all)	0	4	
Pneumonia			
subjects affected / exposed	5 / 56 (8.93%)	4 / 52 (7.69%)	
occurrences (all)	6	7	
Sepsis			
subjects affected / exposed	1 / 56 (1.79%)	3 / 52 (5.77%)	
occurrences (all)	1	3	
Septic shock			
subjects affected / exposed	8 / 56 (14.29%)	1 / 52 (1.92%)	
occurrences (all)	9	1	
Staphylococcal bacteraemia			
subjects affected / exposed	0 / 56 (0.00%)	2 / 52 (3.85%)	
occurrences (all)	0	2	
Metabolism and nutrition disorders			

Dehydration			
subjects affected / exposed	2 / 56 (3.57%)	3 / 52 (5.77%)	
occurrences (all)	2	3	
Hyperglycaemia			
subjects affected / exposed	8 / 56 (14.29%)	4 / 52 (7.69%)	
occurrences (all)	11	5	
Hypoalbuminaemia			
subjects affected / exposed	3 / 56 (5.36%)	1 / 52 (1.92%)	
occurrences (all)	3	1	
Hypocalcaemia			
subjects affected / exposed	3 / 56 (5.36%)	1 / 52 (1.92%)	
occurrences (all)	4	1	
Hypokalaemia			
subjects affected / exposed	5 / 56 (8.93%)	6 / 52 (11.54%)	
occurrences (all)	5	6	
Hypomagnesaemia			
subjects affected / exposed	0 / 56 (0.00%)	2 / 52 (3.85%)	
occurrences (all)	0	2	
Hypophosphataemia			
subjects affected / exposed	5 / 56 (8.93%)	3 / 52 (5.77%)	
occurrences (all)	5	3	

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
05 August 2016	Amendment I Addition of NRM at 210 Days post-randomization as a secondary endpoint; Addition of NRM assessment at 1-year following randomization; Addition of Day 28 timepoint for immune reconstitution. Updated disease inclusion criteria for AML and ALL TBI dose and days for conditioning regimen option A.2. Determination of using a single or double cord in the control arm by the investigator prior to randomization was clarified. General language clarifications/refinements were made.
27 October 2016	Amendment II Updated secondary endpoint assessment dates for NRM, OS and DFS, relapse, and relapse mortality from one year to 15 Months post-randomization. AE collection time changed from initiation of conditioning regimen to time of consent. Added clarification of omidubicel infusion guidelines, including minimal infusion time. BM assessment changed from Day 270 to Day 365 post-transplant. Updates made to GvHD prophylaxis monitoring levels and the final process quality control testing and release criteria.
30 July 2017	Amendment III MDS disease criterion and MDS baseline disease assessment criterion were updated. Adjustments were made to refine logistic processes of CBU review to simplify study enrollment and workflow.
10 December 2017	Amendment IV Expanded eligibility criteria to include ALL, AML, and MDS patients and to patients with lymphoma and other rare hematologic malignancies that are typical candidates for transplant. Patient age adjusted from 16-60 years to 12-65 years to allow for a wider age range. Lansky performance scale added due to the inclusion of pediatric patients. Further clarification to the CBU logistic and review processes were made, as well as simplification of backup CBU criteria. Endpoint label modifications made per FDA request to separate into secondary, tertiary, and exploratory endpoints. NRM was changed from a secondary to tertiary endpoint. Details of when chimerism testing must show donor cells to be considered neutrophil engraftment were added. Updates to GvHD and infection prophylaxis and reVVcommendations for toxoplasmosis prophylaxis were added. Language for post- transplant assessments was updated to clarify required days of assessments and distinguish between required versus requested or as performed per standard of care assessments.

01 May 2018	Amendment V Additional (optional) sub-studies for long-term follow-up and immune reconstitution testing were added. Eligibility criteria for ALL, CML, MDS, and lymphoma broadened to align more with standard criteria for transplant candidates, together with disease baseline assessments. Site selection of conditioning regimen of choice broadened so clinical sites could select a regimen according to primary diagnosis/age group instead of relying solely on one regimen for all patients. Permission for GvHD prophylaxis adjustments depending on patient diagnosis or age group. Regimen A.2 modified to allow for TBI to be given as either 1320 cGy or 1200 cy total per institutional practice. Calculation for adjusted body weight formula modified to be specific for the regimen selected. Calcineurin inhibitor tapering was adjusted to allow to begin at Day 100 instead of Day 150. Amendment V was recalled by Gamida Cell from submission to sites as of May 14, 2018, and CROs notified accordingly, following a meeting with FDA that required implementation of changes to the protocol.
22 May 2018	Amendment V.1 Provided to sites for submission included all changes made in Amd V Updates added regarding required disease assessment including flow cytometry, cytogenetics, molecular markers and/or BM morphology and other applicable assessments for all randomized patients at specified visits prior to visit on Day 365 post-transplant per FDA request.
22 January 2019	Amendment VI Addition of new disease criterion of CMMoL and MDS/CMMoL overlap to broaden the list of rare diseases allowed per study Wording adjustments to ALL and MDS criteria. Screening test results requirements adapted to accommodate a pediatric population. Regimen A.1 modified to allow for TBI to be given as either 1350 cGy or 1200 cy total as per institutional practice. Regimen B modified to allow for an alternate dose of busulfan to be added. FACT-BMT quality of life assessment modified for pediatric population. Lymphoma disease assessment was updated to allow for either CT or PET-CT scan of chest, abdomen, and pelvis at baseline and post-randomization. Chimerism assessment allowed to be performed as whole blood or myeloid fraction at the required study visit days. Release criteria tables for the CF, NF, and infusion solution were removed from the protocol as the Certificates of Analysis are provided to the site by Gamida Cell for each batch product to inform of all product specifications. Clarification of SUSAR reporting for omidubicel arm only and based on Regulatory Authorities requirements. All modifications in local amendments IV.1 and IV.2 were included in this Amendment VI.

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.

The analyses of the long term follow-up sub-study were descriptive only and the study was not powered to detect statistical differences between the treatment groups.

Notes: