

## CLINICAL STUDY REPORT ADDENDUM: GC P#05.01.020 (P0501 [GP3 LTF])

### 1. TITLE PAGE

<b>Study Title:</b>	A Multicenter, Randomized, Phase III Registration Trial of Transplantation of omidubicel (NiCord®), Ex Vivo Expanded, Umbilical Cord Blood-derived, Stem and Progenitor Cells, versus Unmanipulated Umbilical Cord Blood for Patients with Hematological Malignancies
<b>Study Number:</b>	GC P#05.01.020 (P0501 [GP3 LTF])
<b>Investigational New Drug Application (IND) Number:</b>	14459
<b>Study Phase:</b>	Phase III
<b>Study Design:</b>	Open-label, controlled, multicenter, international, Phase III, randomized study – Long-term follow-up
<b>Product Name:</b>	Omidubicel (formerly known as Nicord)
<b>Indication:</b>	Patients with hematological malignancies for whom allogeneic stem cell therapy was a recommended and potentially life-saving treatment
<b>Study Initiated (First Patient Enrolled):</b>	20 December 2016
<b>Study Completed (Last Patient Completed):</b>	07 February 2025
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**Final Date: 07 December 2025**

This study was performed in compliance with Good Clinical Practice (GCP), including the archiving of essential documents.

**Confidentiality Statement**

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## 2. SYNOPSIS

### **Sponsor:**

Gamida Cell, Ltd.

### **Name of Finished Product:**

Omidubicel (formerly known as Nicord)

### **Name of Active Ingredient:**

Cultured fraction (CF) consisting of allogeneic, *ex vivo* expanded, hematopoietic CD34+ progenitor cells and non-cultured fraction (NF) of the same cord blood unit (CBU) consisting of allogeneic non-expanded, hematopoietic mature myeloid and lymphoid cells.

### **Study Title:**

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

### **Principal Investigators:**

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### **Publication (reference):**

Horwitz, M. E., P. J. Stiff, C. Cutler, C. Brunstein, R. Hanna, R. T. Maziarz, A. R. Rezvani, N. A. Karris, J. McGuirk, D. Valcarcel, G. J. Schiller, C. A. Lindemans, W. Y. K. Hwang, L. P. Koh, A. Keating, Y. Khaled, N. Hamerschlak, O. Frankfurt, T. Peled, I. Segalovich, B. Blackwell, S. Wease, L. S. Freedman, E. Galamidi-Cohen, and G. Sanz. 2021. 'Omidubicel vs standard myeloablative umbilical cord blood transplantation: results of a phase 3 randomized study', *Blood*, 138: 1429-40.

Lin, C., A. Schwarzbach, J. Sanz, P. Montesinos, P. Stiff, S. Parikh, C. Brunstein, C. Cutler, C. A. Lindemans, R. Hanna, L. P. Koh, M. H. Jagasia, D. Valcarcel, R. T. Maziarz, A. K. Keating, W. Y. K. Hwang, A. R. Rezvani, N. A. Karras, J. F. Fernandes, V. Rocha, I. Badell, R. Ram, G. J. Schiller, L. Volodin, M. C. Walters, N. Hamerschlak, D. Cilloni, O. Frankfurt, J. P. McGuirk, J. Kurtzberg, G. Sanz, R. Simantov, and M. E. Horwitz. 2023. 'Multicenter Long-Term Follow-Up of Allogeneic Hematopoietic Cell Transplantation with Omidubicel: A Pooled Analysis of Five Prospective Clinical Trials', *Transplant Cell Ther*, 29: 338 e1-38 e6.

### **Studied Period:**

20 December 2016 (first patient enrolled) to  
07 February 2025 (last patient completed)

### **Study Phase:**

Phase III

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## **Objectives and Endpoints:**

The objectives of this Phase III optional long-term follow-up (LTF) sub-study were to describe the long-term clinical outcomes up to 5 years following transplantation.

The overall research goals for the LTF sub-study were:

- Describe long-term sustained donor chimerism
- Describe survival and disease-free survival (DFS)
- Describe characteristics of patients with secondary graft failure or disease relapse
- Describe long-term immune reconstitution
- Describe incidence of chronic graft-versus-host disease (cGvHD)

In addition, graft-versus-host disease (GvHD)-free, relapse-free survival (GRFS), defined as the time from the date of transplantation to the time of acute GvHD (aGvHD) Grade III-IV, cGvHD, relapse, or death by any cause, and cGvHD-free, relapse-free survival (cGRFS), defined as the time from the date of transplantation to the time of cGvHD, relapse, or death by any cause, were described.

The objective of the main study was to compare the safety and efficacy of omidubicel transplantation to unmanipulated CBU (UCBU) transplantation in patients with hematological malignancies following conditioning therapy. All of the main study endpoints were addressed in the main P0501 Study (also referred to as GC P#05.01.020 or GP3 study) clinical study report (CSR).

The primary endpoint was to assess the time to neutrophil engraftment following transplantation. The secondary endpoints were related to incidence of Grade 2/3 bacterial or invasive fungal infections, days alive and out of hospital in the first 100 days following transplantation and platelet engraftment. Relevant exploratory endpoints analyzed in the main study, including overall survival (OS), DFS, cGvHD, secondary graft failure, relapse and immune reconstitution were analyzed again after incorporating data from the LTF, and are described in this report addendum.

## **Methodology:**

Refer to the main P0501 CSR for details of the methodology of the main study.

This was an optional observational LTF sub-study for patients with hematological malignancies for whom allogeneic stem cell transplantation was a recommended and potentially life-saving treatment, with required disease features rendering them eligible for allogeneic transplantation, who received either transplantation of omidubicel or transplantation of 1 or 2 UCBU(s) in study P0501.

For patients who received transplantation and agreed to enroll in this observational LTF follow-up sub-study, long-term outcomes were collected at 2 years, 3 years, 4 years and 5 years post-transplantation as part of standard of care assessments.

## **Number of Patients (Planned and Analyzed):**

Planned: up to 118 patients who received omidubicel or UCBU transplantation in study P0501.

Analyzed: 71 patients who enrolled in the LTF sub-study.

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**Diagnosis and Main Criteria for Inclusion:**

Refer to the main P0501 CSR for the inclusion and exclusion criteria for Study P0501.

All patients who received omidubicel or UCBU transplantation in Study P0501 who were still enrolled at the end of the main study were eligible for the LTF sub-study.

**Test Product, Dose, and Mode of Administration**

Patients did not receive any treatment with omidubicel or UCBU during this LTF sub-study. All patients had previously received transplantation of omidubicel transplantation (39 patients) or transplantation of 1 or 2 UCBUs (32 patients) during Study P0501, prior to enrolling in this sub-study.

Refer to the main P0501 CSR for details regarding test product, dose, and mode of administration for each patient during the main P0501 study.

**Study Duration:**

Approximately 4 years after completion of the P0501 clinical interventional study.

**Criteria for Evaluation:**

The endpoints addressed in the present CSR addendum are the long-term clinical outcomes up to 5 years post-transplantation, i.e., long-term sustained donor chimerism, survival and DFS.

**Efficacy:**

Efficacy measurements included long-term sustained donor chimerism, survival and DFS, GRFS, cGRFS, and immune reconstitution parameters.

**Safety:**

No adverse event reporting was required for this sub-study. Events recorded in the database were death, relapse, secondary graft failure, new malignancy, second transplant, and cGvHD.

**Statistical Methods:**

Descriptive summary statistics or counts/percentages were provided for some of the variables, and for the other variables, estimates were provided. The cumulative incidence of cGvHD, secondary graft failure, and progression/relapse, and the Kaplan-Meier statistics of peripheral blood/bone marrow (BM) donor chimerism > 95% after Day 42, OS, DFS, GRFS, and cGRFS were analyzed in the GP3 patients overall. All other parameters were analyzed in the GP3 LTF patients alone. The analyses were descriptive only and the study was not powered to detect statistical differences between the treatment groups.

**Results:****Efficacy:**

The Kaplan-Meier probability of OS was 0.82 in the patients who had received omidubicel and 0.86 in the patients who had received UCBU by Year 5 post-transplantation and the Kaplan-Meier probability of DFS by Year 5 post-transplantation was 0.74 and 0.83,

respectively. Immune reconstitution was sustained over the 5 years post-transplantation. Long term hematopoiesis was demonstrated with complete blood count and chimerism studies.

### **Safety:**

Overall, the omidubicel and UCBU grafts remained safe and well-tolerated in the patients who enrolled in the LTF sub-study by Year 5 post-transplantation.

### Deaths

Eleven deaths were reported during this LTF sub-study, 7 deaths among the patients who had received omidubicel and 4 deaths among the patients who had received UCBU.

### Secondary Graft Failure

No patient experienced secondary graft failure during the LTF sub-study.

### cGvHD

The cumulative incidence of cGvHD by Year 5 post-transplantation was 0.56 in the omidubicel group and 0.44 in the UCBU group.

### New Malignancies

Six patients were diagnosed with new malignancies during the LTF sub-study, 4 in patients who had received omidubicel and 2 in patients who had received UCBU.

## **CONCLUSIONS**

### **Efficacy Conclusions:**

Overall efficacy demonstrated OS of over 80% and long-term sustained hematopoiesis and durability of both omidubicel and UCBU grafts, with long-term immune reconstitution and low rates of disease relapse.

### **Safety Conclusions:**

Long term toxicities were generally acceptable, with cGvHD reported in approximately one third of patients, the majority graded as mild.

### **Overall Conclusions:**

The LTF demonstrated that omidubicel provided sustained hematopoiesis over a 5-year post-transplantation period. The study was not designed to detect differences in outcomes between the treatment groups. While patients on the control UCBU arm in the main study had an increased risk of primary graft failure and infection, those who survived the post-transplantation period and went on to the LTF had similar outcomes over 5 years to those treated with omidubicel.

**Final Date: 07 December 2025**

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#### **4. LIST OF ABBREVIATIONS AND DEFINITIONS OF TERMS**

ABMT	autologous bone marrow transplant
AE	adverse event
aGvHD	acute graft-versus-host disease
ALL	acute lymphoblastic leukemia
AML	acute myelogenous leukemia
AVD	doxorubicin, vinblastine, and dacarbazine
BMI	body mass index
BMT	bone marrow transplant
Bob-1	B cell Oct-binding protein-1
BP	blood pressure
BV	brentuximab vedotin
C	cycle
CALGB	Cancer and Leukemia Group B
CAP	community-acquired pneumonia
CBC	complete blood count
CBU	cord blood unit
CF	cultured fraction
cGvHD	chronic graft-versus-host disease
CML	chronic myelogenous leukemia
CMV	cytomegalovirus
CONSORT	Consolidated Standards of Reporting Trials
COVID	coronavirus disease
COVID-19	coronavirus disease 2019
CR	complete remission
CSR	clinical study report
CT	computed tomography
CVAD	cyclophosphamide, vincristine sulfate, doxorubicin hydrochloride (Adriamycin), and dexamethasone
D	day

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DBP	diastolic blood pressure
DEXA	dual-energy X-ray absorptiometry
DFS	disease-free survival
DLCO	diffusing capacity of the lungs for carbon monoxide
DVT	deep vein thrombosis
<i>E. coli</i>	<i>Escherichia coli</i>
eCRF	electronic case report form
EBER	Epstein-Barr virus-encoded small ribonucleic acid
EBV	Epstein-Barr virus
ED	emergency department
ENT	ears, nose, and throat
ESHAP	etoposide, solumedrone, high-dose cytarabine, and cisplatin
FDA	Food and Drug Administration
FDG	18F-fluorodeoxyglucose
FENa	fractional excretion of sodium
Flt3-L	FMS-like tyrosine kinase 3 ligand
GCP	Good Clinical Practice
GI	gastrointestinal
GvHD	graft-versus-host disease
Hb	hemoglobin
HHV6	human herpesvirus 6
HCT	hematopoietic cell transplant
HiDAC	high-dose cytarabine
HLA	human leukocyte antigen
HR	heart rate
HSCT	hematopoietic stem cell transplantation
ICF	informed consent form
ID	identifier
IL-6	interleukin-6

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IND	Investigational New Drug Application
ITT	intent-to-treat
IV	intravenous
K	thousand
LR	lactated Ringer's
LTF	long-term follow-up
MDS	myelodysplastic syndrome
MEC	mitoxantrone, etoposide, and cytarabine
MMF	mycophenolate mofetil
mpd	minor protocol deviation
MPD	major protocol deviation
MUM1	multiple myeloma oncogene 1
N	number of patients
NAM	nicotinamide
NF	non-cultured fraction
NIH	National Institutes of Health
Oct-2	octamer-binding transcription factor-2
OOS	out of specifications
OS	overall survival
PAX5	paired box 5
PD-L1	programmed death-ligand 1
PET	positron emission tomography
PO	<i>per os</i> (by mouth)
POMP	purinethol, Oncovin <sup>®</sup> , methotrexate, and prednisone
PR	partial remission
PRBC	packed red blood cell
PT	post-transplantation
PTLD	post-transplant lymphoproliferative disorder
q12hr	<i>quaque</i> (every) 12 hours



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RBC	red blood cell
RDI	radioiodine
RoW	rest of the world
RR	respiratory rate
SAE	serious adverse event
SBP	systolic blood pressure
SCF	stem cell factor
SCT	stem cell transplantation
SD	stable disease
SOC	standard of care
SpO <sub>2</sub>	oxygen saturation
staph	<i>Staphylococcus</i>
TBI	total body irradiation
TMA	thrombotic microangiopathy
TNC	total nucleated cell
TPO	thrombopoietin
UCB	umbilical cord blood
UCBU	unmanipulated cord blood unit
UK	United Kingdom
URI	upper respiratory infection
US	United States
UTI	urinary tract infection
WBC	white blood cell

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## 5. ETHICS

Refer to the main GC P#05.01.020 (P0501 [GP3]) clinical study report (CSR). Consent to enroll in the long-term follow-up (LTF) sub-study was obtained as part of the main P0501 study's informed consent form (ICF), which is provided in [Appendix 16.1.3 of the main P0501 CSR](#) (the consent for the LTF sub-study was embedded in the main ICF as “optional participation in the LTF study” with an additional signature page).

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## **6. INVESTIGATORS AND STUDY ADMINISTRATIVE STRUCTURE**

Refer to the main P0501 CSR.

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## 7. INTRODUCTION

The main P0501 study (also referred to as GP3 Study and/or GC P#05.01.020 in the main CSR) was an open-label, controlled, multicenter, international, Phase III, randomized study comparing transplantation of omidubicel (formerly known as NiCord®) to transplantation of 1 or 2 unmanipulated, unrelated cord blood units (CBUs) in patients with hematological malignancies for whom allogeneic stem cell transplantation (SCT) was currently a recommended and potentially lifesaving treatment, all with required disease features rendering them eligible for allogeneic transplantation.

The purpose of the present CSR addendum is to report the results of LTF (also referred to as GP3 LTF study) of patients who received omidubicel or unmanipulated CBU (UCBU) transplantation in study P0501 at 2, 3, 4, and 5 years post-transplantation and who agreed to enroll in the LTF sub-study. The contents of this addendum are intended to complement, and not replace, the contents of the corresponding sections of the main P0501 CSR.

Gamida Cell, Ltd. developed omidubicel for the treatment of hematological malignancies and other hematological disorders in adults and pediatrics. The non-proprietary name omidubicel is applied throughout this report, however omidubicel was previously referred to as NiCord.

The purpose of Study P0501 (GP3), a pivotal Phase III, controlled, open-label, multicenter, international, randomized study, was to compare transplantation of omidubicel to transplantation of 1 or 2 unmanipulated, unrelated CBUs. The study randomized 125 patients with hematological malignancies for whom allogeneic SCT was a recommended and potentially life-saving treatment, all with required disease features rendering them eligible for allogeneic transplantation.

The main P0501 study was designed to follow patients for 12 months after transplantation. Patients were given the opportunity to participate in a LTF study, which provided clinical follow-up for 4 additional years, for a total of 5 years of follow-up post-transplantation. This CSR summarizes the experience of patients who participated in the LTF portion of the study and reports on the overall follow-up of all patients in Study P0501.

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## 8. STUDY OBJECTIVES

The objectives of this Phase III optional LTF sub-study were to describe the long-term clinical outcomes up to 5 years following transplantation.

The research goals for the LTF sub-study were to:

- Describe long-term sustained donor chimerism
- Describe survival and disease-free survival (DFS)
- Describe characteristics of patients with secondary graft failure or disease relapse
- Describe long-term immune reconstitution
- Describe incidence of chronic graft-versus-host disease (cGvHD)

In addition, graft-versus-host disease (GvHD)-free, relapse-free survival (GRFS), defined as the time from the date of transplantation to the time of acute GvHD (aGvHD) Grade III-IV, cGvHD, relapse, or death by any cause, and cGvHD-free, relapse-free survival (cGRFS), defined as the time from the date of transplantation to the time of cGvHD, relapse, or death by any cause, were described.

The objective of the main study was to compare the safety and efficacy of omidubicel transplantation to UCBU transplantation in patients with hematological malignancies following conditioning therapy. All of the main study endpoints were addressed in the main P0501 Study (also referred as GC P#05.01.020 or GP3 study) CSR. The primary endpoint was to assess the time to neutrophil engraftment following transplantation. The secondary endpoints were related to incidence of Grade 2/3 bacterial or invasive fungal infections, days alive and out of hospital in the first 100 days following transplantation and platelet engraftment. Relevant exploratory endpoints analyzed in the main study, including overall survival (OS), DFS, cGvHD, secondary graft failure, relapse and immune reconstitution, were analyzed again after incorporating data from the LTF, and are described in this report addendum.

## 9. INVESTIGATIONAL PLAN

This study was conducted in accordance with Gamida Cell Protocol GC P#05.01.020 (P0501 [GP3]), “A Multicenter, Randomized, Phase III Registration Trial of Transplantation of omidubicel (NiCord®), *Ex Vivo* Expanded, Umbilical Cord Blood-derived, Stem and Progenitor Cells, versus Unmanipulated Umbilical Cord Blood for Patients with Hematological Malignancies,” Amendment VI, dated 22 January 2019. Enrollment into the main study began under Amendment II of the protocol dated 27 October 2016. Details on protocol amendments are provided in the main P0501 CSR.

### 9.1. Overall Study Design and Plan

Study P0501 was designed as an open-label, controlled, multicenter, Phase III, randomized study of transplantation of omidubicel versus UCBU in patients with hematological malignancies for whom allogeneic stem cell therapy was a recommended and potentially life-saving treatment. The study randomized 125 patients to transplantation of omidubicel or UCBU in a 1:1 ratio (62 patients were allocated to omidubicel and 63 patients were allocated to UCBU). In total, 56 patients received omidubicel and 62 patients received UCBU. For additional discussion of statistical methods in the main study, refer to the main P0501 CSR.

This study comprised patients aged 12-65 years old with hematological malignancies and no available matched sibling or matched unrelated adult donor who were randomized at multiple international centers between December 2016 and December 2019. Eligibility required the availability of a CBU that met specific requirements for human leukocyte antigen (HLA) matching, as well as CD34+ cell count, total nucleated cell (TNC) count, and TNC dose. Detailed patient and CBU eligibility are given in the main P0501 CSR. Additionally, if randomized to the control arm, specifications for use of a second CBU were outlined in the protocol depending on HLA, TNC dose, and CD34+ cell dose of the initial CBU selected. The investigator was required to make the determination prior to randomization if using one or two CBUs if randomized to the control arm.

#### Long-term Follow-up Sub-study

Patients who received transplantation were given the option to enroll in the observational LTF sub-study, and were assessed for the long-term outcomes described in Section 8 at 2 years, 3 years, 4 years and 5 years post-transplantation as part of standard of care (SOC) assessments.

Study endpoints are detailed in Section 8 and Section 9.5.1. The present CSR addendum describes the results of the LTF sub-study.

The clinical trial protocol (and any changes to the protocol) and a sample electronic case report form (eCRF) used for the study are provided in [Appendix 16.1.1](#) and [Appendix 16.1.2](#), respectively, of the main P0501 CSR.

### 9.2. Discussion of Study Design, Including the Choice of Control Groups

The LTF sub-study was designed to follow the patients who had received transplantation of either omidubicel or 1 or 2 UCBUs as part of the P0501 study for up to 5 years post-transplantation to assess the long-term efficacy and safety of omidubicel in comparison with UCBU.

The purpose of the main P0501 Phase III pivotal study was to compare the efficacy and safety of omidubicel with the most relevant comparator, standard UCBU, from which it is derived. This study was designed to evaluate these objectives in patients with high-risk hematologic malignancies who required allogeneic hematopoietic stem cell transplantation (HSCT) and did not have a suitable matched donor available in a timely manner. In the main study, patients were followed for 365 days post-transplantation/15 months post-randomization. The patients were then given the option to enroll in LTF for up to 5 years post-transplantation. Study P0501 met its primary endpoint, demonstrating a significant improvement in time to neutrophil engraftment. The primary endpoint was supported by secondary endpoints that demonstrated significant improvement (with multiplicity adjustment) in Grade 2/3 bacterial and invasive fungal infections, days alive and out of hospital, and platelet engraftment following transplantation.

Overall, the secondary endpoints of this study reflected the significant risk of clinical sequelae of delayed hematopoietic recovery. Results of the secondary endpoint analyses supported the primary endpoint analysis and provided further evidence of the clinical benefit of omidubicel. Other study endpoints, as well as additional analyses performed, further assessed engraftment, infections and hospitalization and provided a comprehensive and robust picture of benefit in these topics.

The safety findings were overall consistent with the known toxicities and complications following allogeneic HSCT with associated conditioning therapy, with some indications of an improved safety profile for omidubicel over UCBU transplants. The frequency and severity of the main post-transplantation complications were either reduced for omidubicel recipients, as in the case of infections, or were similar to the known experience, as in the case of GvHD.

Overall, the results from this well-conducted pivotal Phase III study, as demonstrated by well-balanced patient characteristics, and an intent-to-treat (ITT) analysis of the primary and secondary endpoints, supported the rationale for the clinical use of omidubicel in this patient population. Moreover, results from this study were consistent with findings from early phase clinical studies and established the overall risk-benefit profile, which appeared to be favorable.

The LTF provides the opportunity to follow patients over a longer time period in order to demonstrate the durability of the hematopoietic graft, and identify late toxicities associated with omidubicel.

### **9.3. Selection of Study Population**

Refer to the main P0501 CSR for inclusion, exclusion and patient withdrawal criteria for the main P0501 study. All patients who received omidubicel or UCBU transplantation in study P0501 and who were still enrolled at the end of the main study were eligible for the LTF sub-study.

### **9.4. Treatments**

No treatment with omidubicel or UCBU was administered during this sub-study.

This was a LTF study of patients who received omidubicel or a single or double UCBU as part of the P0501 clinical interventional study.

Omidubicel is a cryopreserved cell-based product of allogeneic, *ex vivo* expanded, umbilical cord blood (UCB)-derived, hematopoietic CD34+ progenitor cells (omidubicel cultured fraction [CF]) and the non-expanded cell fraction of the same CBU (omidubicel non-cultured fraction [NF]) consisting of mature myeloid and lymphoid cells.

Briefly, production of omidubicel involves *ex vivo* culture of purified CD133+ cells derived from a single CBU for 21 ( $\pm 2$ ) days in the presence of the cytokines stem cell factor (SCF), thrombopoietin (TPO), interleukin-6 (IL-6) and FMS-like tyrosine kinase 3 ligand (Flt3-L), 50 ng/mL each, 2.5 mM nicotinamide (NAM), fetal bovine serum, and culture medium.

Refer to the main P0501 CSR for additional information on the administration of omidubicel and UCBU infusion, as well as the conditioning regimen, GvHD prophylaxis medications, infusion support, supportive cytokine therapy, infection prophylaxis and surveillance, blood products, and prior and concomitant therapy in the main P0501 study.

**9.4.1. Treatments Administered**

Not applicable.

**9.4.2. Identity of Investigational Product**

Not applicable.

**9.4.3. Method of Assigning Patients to Treatment Groups**

Not applicable.

**9.4.4. Selection of Doses in the Study**

Not applicable.

**9.4.5. Selection and Timing of Dose for Each Patient**

Not applicable.

**9.4.6. Blinding**

Not applicable.

**9.4.7. Prior and Concomitant Therapy**

Not applicable.

**9.4.8. Treatment Compliance**

Not applicable.



## 9.5. Efficacy and Safety Variables

### 9.5.1. Efficacy and Safety Measurements Assessed

Evaluating the outcomes of HSCT involves a comprehensive assessment of various parameters to monitor the success of the procedure and the overall well-being of the recipient. This multifaceted evaluation includes an array of tests aimed at gauging sustained chimerism, patient survival, immune system reconstitution, disease relapse, secondary graft failure, and the occurrence of cGvHD. The following assessments played a pivotal role in monitoring the possible clinical outcomes for patients who underwent HSCT. These assessments were performed as part of SOC and were not required to be performed for the study itself.

The results of the following measurements that were obtained closest to each time point (2, 3, 4, and 5 years post-transplantation) were recorded:

- Vital signs (weight, temperature [T], systolic blood pressure [SBP], diastolic blood pressure [DBP], pulse, respiratory rate [RR], and oxygen saturation [SpO<sub>2</sub>] per site practice).
- Peripheral blood or bone marrow (BM) collection for donor/host chimerism. Chimerism testing involved assessing the proportion of donor-derived hematopoietic cells in the recipient's blood or BM. It helped in the determination of the extent of engraftment and sustained presence of donor cells, which was crucial for the success of the transplant.
- Immunophenotyping – Lymphocyte subsets: CD3+, CD4+, CD8+, CD19+, CD56+/16+, and additional immunophenotyping as per site practice. Immunophenotyping involved analyzing immune cell populations using flow cytometry. This test aided in monitoring immune system recovery and reconstitution, which was essential for host defense against pathogens.
- Complete blood count (CBC) with white blood cell (WBC) differential.
- GvHD evaluation involved monitoring for the development of GvHD, a common complication where donor immune cells attack recipient tissues. Chronic GvHD was assessed and classified for each patient as mild, moderate, or severe, according to the National Institutes of Health (NIH) consensus grading criteria ([Filipovich et al. 2005](#)).
- Progression/relapse of primary disease.
- Secondary graft failure.
- New malignancy.
- Second transplant.

Patients who experienced progression/relapse or graft failure during the main P0501 study were followed up for survival only.

#### At Time of Death

Each site used its own specific standard methods to obtain information about the death of a patient. The following data were recorded at the time of death:

- Primary and secondary cause of death.

- Last available data (if any updates to assessments had occurred since the previous visit).

#### **9.5.1.1. Efficacy Measurements**

Efficacy measurements included long-term sustained donor chimerism, survival and DFS, GRFS, cGRFS, long-term immune reconstitution parameters, and progression/relapse of primary disease in patients who received omidubicel or UCBU.

##### **9.5.1.1.1. Donor Chimerism**

Donor chimerism from whole blood assessments on peripheral blood or BM was used.

##### **9.5.1.1.2. Disease-free Survival**

DFS was defined as the time from the date of transplantation to the date of disease relapse or death from any cause, whichever came first.

##### **9.5.1.1.3. Overall Survival**

OS was defined as the time from the date of transplantation to death from any cause.

##### **9.5.1.1.4. GvHD-free, Relapse-free Survival**

GRFS was defined as the time from the date of transplantation to aGvHD Grade III-IV, cGvHD, relapse, or death by any cause.

##### **9.5.1.1.5. Chronic GvHD-free, Relapse-free Survival**

cGRFS was defined as the time from the date of transplantation to cGvHD, relapse, or death by any cause.

##### **9.5.1.1.6. Disease Relapse/Progression**

Testing for recurrent malignancy in the blood, marrow or other sites was used to assess relapse after transplantation. For the purpose of this study, relapse was defined by either morphological or cytogenetic evidence of acute myelogenous leukemia (AML), acute lymphoblastic leukemia (ALL), chronic myelogenous leukemia (CML), myelodysplastic syndrome (MDS), or lymphomas consistent with pre-transplant features.

Refer to the main P0501 CSR for detailed definitions of minimal residual disease and relapse of acute leukemia, CML, MDS, and lymphoma.

##### **9.5.1.1.7. Immune Reconstitution**

Cellular immune recovery was assessed based on lymphocyte subset analysis to quantify the different lymphocyte subpopulations (CD3+, CD4+, CD8+, CD19+, CD56+/16+). Additional assessments that may also have been collected as part of SOC included: CD123+ (dendritic lymphocytes), CD11c+ (dendritic myeloid cells), CD3+CD56+CD16+ (natural killer [NK] T cells), CD45RA+/CD62L+ (recent thymic emigrants), CD25+/CD62L+ (regulatory T cells), total CD25+, CD57+/CD28+ (cytotoxic T lymphocytes), HLA-DR+ (activated).

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#### **9.5.1.2. Safety Measurements**

In line with the objectives of this LTF sub-study, no adverse event (AE; including serious adverse event [SAE]) reporting was required for this sub-study.

Safety measurements included CBC with WBC differential, vital signs, secondary graft failure, and cGvHD assessment.

The following clinically relevant events were recorded in the designated electronic data capture system:

- Death.
- Progression/relapse.
- Secondary graft failure.
- New malignancy.
- Second transplant.
- Chronic GvHD.

##### **9.5.1.2.1. Complete Blood Count with White Blood Cell Differential**

CBC with WBC differential was assessed at 2, 3, 4, and 5 years post-transplantation. The CBC consisted of red blood cells (RBCs;  $10^{12}/L$ ), hematocrit (%), hemoglobin (Hb; g/dL), WBCs ( $10^9/L$ ), and platelet count ( $10^9/L$ ). The WBC differential assessed the percentages of bands, segments, neutrophils, lymphocytes, monocytes, eosinophils, basophils, blasts, variant/atypical lymphocytes, other (not blasts), and other.

##### **9.5.1.2.2. Vital Signs**

Vital signs (weight, SBP, DBP, pulse, temperature, RR, and SpO<sub>2</sub>) were measured at 2, 3, 4, and 5 years post-transplantation.

##### **9.5.1.2.3. Secondary Graft Failure**

Secondary graft failure consisted of documented neutrophil engraftment, followed by severe neutropenia ( $< 0.5 \times 10^9/L$  for 3 or more consecutive laboratory values on separate days) with marrow cellularity  $< 5\%$ , without subsequent improvement occurring either spontaneously or after growth factor treatment. Infusion of an additional stem cell product after documented neutrophil engraftment was considered secondary graft failure. The earlier of the first day of severe neutropenia, as defined above, or the date of first additional stem cell infusion was designated the date of secondary graft failure.

##### **9.5.1.2.4. Chronic GvHD**

Chronic GvHD was assessed at 2, 3, 4, and 5 years post-transplantation and classified as mild/moderate/severe according to the 2014 NIH consensus criteria ([Filipovich et al. 2005](#)).

#### **9.5.1.3. Schedule of Events**

The schedule of assessments conducted during the main study can be found in the main P0501 CSR. Refer to Section [9.5.1](#) for the schedule of assessments for the LTF sub-study.

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### **9.5.2. Appropriateness of Measurements**

The assessments conducted in the study to evaluate the efficacy and safety endpoints were standard, validated, and appropriate to the study design.

The main P0501 study evaluated the efficacy and safety of omidubicel through 1 year post-transplantation in patients with hematologic malignancies. In this LTF sub-study, for evaluation of the long-term efficacy and safety (from 2 to 5 years post-transplantation), cGvHD, secondary graft failure, GRFS, cGRFS, and sustained chimerism were important outcomes to assess in this population.

Secondary graft failure was selected as an outcome to follow up as this parameter reflects the durability of the graft over time. A stable graft facilitates hematopoiesis for years after the transplant.

The important safety and efficacy outcomes, other than the incidence of cGvHD, secondary graft failure, and sustained chimerism, were the kinetics of long-term immune reconstitution, OS and DFS, GRFS, cGRFS, and the occurrence of any relapses or secondary malignancies, either host- or donor-derived.

### **9.5.3. Primary Efficacy Variable(s)**

No efficacy variables were defined as primary. All efficacy variables are described in Section [9.5.1.1](#).

### **9.5.4. Drug Concentration Measurements**

Not applicable.

## **9.6. Data Quality Assurance**

Refer to the main P0501 CSR.

## **9.7. Planned Statistical Methods and Determination of Sample Size**

### **9.7.1. Statistical and Analytical Plans**

The statistical methods planned for the reporting and analyses of data collected during the LTF sub-study are described in Appendix J of the protocol (refer to [Appendix 16.1.1](#) of the main P0501 CSR).

All statistical analyses were performed using SAS<sup>®</sup> Software (SAS Institute Inc., Cary, NC, USA) Version 9.4.

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#### **9.7.1.1. Long-term Follow-up Observational Study Statistical Plan**

All analyses were conducted and presented based on the treatment the patient received. For the GP3 LTF population (defined in Section 9.7.1.2), this included all patients enrolled in the LTF sub-study and patients were grouped and analyzed separately per treatment received in the main study. For the GP3 and GP3 LTF population (defined in Section 9.7.1.2), this included all patients who received a transplant in the main study and patients were analyzed separately per treatment received in the main study. Descriptive summary statistics or counts/percentages were provided for some variables, and for the other variables, estimates were provided.

##### **9.7.1.1.1. Chimerism**

Peripheral blood and/or BM chimerism was assessed. The number and percentage of patients with at least 95% donor chimerism at 2, 3, 4, and 5 years post-transplantation were summarized. Patients who had progressed/relapsed, had graft failure, or who died before the target day (2, 3, 4, and 5 years) were excluded from this analysis after that event. In addition, the proportion of patients with peripheral blood/BM chimerism <95% after Day 42 at Year 2, 3, 4, and 5 post-transplantation was estimated using the Kaplan-Meier method.

##### **9.7.1.1.2. Overall Survival**

The proportion of patients alive at 2, 3, 4, and 5 years post-transplantation was estimated using the Kaplan-Meier method.

##### **9.7.1.1.3. Disease-Free Survival**

The proportion of patients alive and without progression/relapse at 2, 3, 4, and 5 years post-transplantation was estimated using the Kaplan-Meier method.

##### **9.7.1.1.4. GvHD-free, Relapse-free Survival**

The proportion of patients alive and without aGvHD Grade III-IV, cGvHD, or relapse at 2, 3, 4, and 5 years post-transplantation was estimated using the Kaplan-Meier method.

##### **9.7.1.1.5. Chronic GvHD-free, Relapse-free Survival**

The proportion of patients alive and without cGvHD or relapse at 2, 3, 4, and 5 years post-transplantation was estimated using the Kaplan-Meier method.

##### **9.7.1.1.6. Secondary Graft Failure, Disease Relapse, and cGvHD**

The cumulative incidence of patients with secondary graft failure, disease relapse, and patients who experienced cGvHD at 2, 3, 4, and 5 years post-transplantation were estimated. For secondary graft failure, death and primary engraftment failure were considered competing events. For relapse, death without relapse was considered a competing event. For cGvHD, death, failure to achieve neutrophil engraftment, secondary graft failure, second transplant, and relapse were considered competing events. In addition, the maximum severity of cGvHD reported for visits from Year 2 to Year 5 was summarized.

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#### **9.7.1.1.7. Immune Reconstitution**

Descriptive statistics were provided for different lymphocyte subpopulations at 2, 3, 4, and 5 years post-transplantation (mean, standard deviation, median, quartiles). Patients who had progressed/relapsed, had graft failure, or who died before the target day (2, 3, 4, and 5 years) were excluded from this analysis after that event.

#### **9.7.1.1.8. Deaths**

A listing of vital status was provided with patient identifier, date of transplant, last status summary form entered, vital status calculated from transplant to last contact on the status summary form (day), primary cause of death, and secondary cause of death.

#### **9.7.1.1.9. Vital Signs**

Vital signs were tabulated by visit and summarized in patient listings.

#### **9.7.1.1.10. Clinical Laboratory Evaluations**

CBC parameters and WBC differential were tabulated and a listing of individual patient CBC results was provided.

#### **9.7.1.2. Analysis Populations**

##### **GP3 Long-term Follow-up (LTF) Patients**

GP3 LTF patients refers to all patients enrolled in the LTF sub-study.

##### **GP3 Patients**

GP3 patients refers to all patients who received an omidubicel or UCBU transplantation during the main P0501 study, whether or not they enrolled in the LTF. For patients who did not enroll in the LTF, data up until the end of their enrollment in the main study are included. For patients enrolled in the LTF, data include all data until the end of their enrollment in the LTF. In the tables and figures, this population is referred to as “GP3 and GP3 LTF Patients.”

#### **9.7.1.3. Summary of Study Conduct and Patients**

##### **9.7.1.3.1. Disposition of Patients**

Patient disposition was described in tables. A Consolidated Standards of Reporting Trials (CONSORT) diagram described the patient disposition and loss to follow-up through the course of the LTF sub-study. A summary of the length of follow-up was presented.

##### **9.7.1.3.2. Demographic and Other Baseline Characteristics**

Demographics (age, gender, race) and relevant baseline information (disease risk group, intended cord blood transplant, primary diagnosis, hematopoietic cell transplant (HCT)-specific comorbidity index, antigen-level HLA match, allele-level HLA match, conditioning regimen) were presented and summarized for the patients enrolled in the LTF sub-study with appropriate descriptive statistics.

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### **9.7.2. Determination of Sample Size**

Not applicable. Patients who had received omidubicel or UCBU transplantation in Study P0501 and consented to this LTF sub-study were enrolled without a targeted sample size.

## **9.8. Changes in the Conduct of the Study or Planned Analyses**

### **9.8.1. Changes in the Conduct of the Study**

Refer to the main P0501 CSR for the summary of protocol amendments and changes in study conduct related to the coronavirus disease 2019 (COVID-19) pandemic.

### **9.8.2. Changes in the Planned Analyses**

Kaplan-Meier analyses of GRFS and cGRFS were added to the analyses originally planned for the LTF sub-study in the protocol.

The reference time point used for the analyses was transplantation, instead of randomization as originally planned in the protocol.

Data from the main GP3 study and the LTF sub-study were used for the analyses, rather than only data from the LTF sub-study.

Some analyses were performed for the GP3 and GP3 LTF patients as well as for the GP3 LTF patients alone in order to evaluate longer timeframes in these patients (i.e., from transplantation through the end of LTF), as well as to analyze more complete data for endpoints such as relapse, cGvHD, etc.

For immune reconstitution, descriptive statistics were provided for different lymphocyte subpopulations at 2, 3, 4, and 5 years post-transplantation, instead of estimates of the distribution of numbers and proportions of the different lymphocyte subpopulations as originally planned in the protocol.

The competing risks used for the analyses of secondary graft failure and for cGvHD were different from those originally planned in the protocol: relapse was removed as a competing risk for secondary graft failure and failure to achieve neutrophil engraftment, secondary graft failure, and relapse were added as competing risks for cGvHD.

The analyses planned in the protocol mentioned autologous recovery as exclusionary for the analyses of chimerism and immune reconstitution and as part of the definition of DFS. However, autologous recovery was not an endpoint for this study and was therefore not used in the analyses.

## 10. STUDY PATIENTS

### 10.1. Disposition of Patients

Refer to the main CSR for patient disposition in the main P0501 study.

Summaries of patient disposition are provided for the GP3 LTF patients in [Table 1](#) and [Figure 1](#). The vital status of each GP3 LTF patient during the LTF sub-study is listed in [Listing 16.2.1.1](#). The GP3 LTF patients who withdrew are listed in [Listing 16.2.1.2](#) and the GP3 LTF patients who were lost to follow-up are listed in [Listing 16.2.1.3](#).

As shown in [Table 1](#) and [Figure 1](#), a total of 71 patients from the main GP3 study consented and were enrolled in the LTF sub-study. Of these, 39 patients had received an omidubicel transplant and 32 had received an UCBU transplant (either 1 or 2 units). The maximum follow-up post-transplantation was 5 years. Fifty-two (73.2%) out of 71 patients completed Year 5 post-transplantation, including 27 (69.2%) out of 39 patients in the omidubicel group and 25 (78.1%) out of 32 patients in the UCBU group.

**Table 1: Summary of Patient Follow-up (GP3 and GP3 LTF Patients)**

Treatment Received	Number Enrolled in GP3 LTF	Maximum Follow-Up Post-transplantation				
		Year 1	Year 2	Year 3	Year 4	Year 5
Omidubicel	39	0	7	4	1	27
UCBU	32	0	3	1	3	25
Total	71	0	10	5	4	52

Source: [Table 14.1.1](#)

Note: Maximum follow-up was determined by the last visit entered for the Status form regardless of the timing of the visit date for that form.

Abbreviations: LTF = long-term follow-up; UCBU = unmanipulated cord blood unit

Three patients, 2 who had received omidubicel and 1 who had received UCBU, withdrew from the LTF sub-study (see [Table 2](#)).

**Table 2: Listing of Withdrawals (GP3 LTF Patients)**

Treatment Received	Patient ID	Primary Reason for Withdrawal	Days to Withdrawal Post-transplantation
Omidubicel	GP3NUH-002	Patient Request	1050
Omidubicel	GP3SCI-012	Patient Request	1126
UCBU	GP3RMH-001	Sponsor Request	768

Source: [Listing 16.2.1.2](#)

Abbreviations: ID = identifier; UCBU = unmanipulated cord blood unit

Six patients, 3 who had received omidubicel and 3 who had received UCBU, were lost to follow-up during the LTF sub-study (see [Table 3](#)).



**Table 3: Listing of Patients Who Were Lost to Follow-up Post-transplantation (GP3 LTF Patients)**

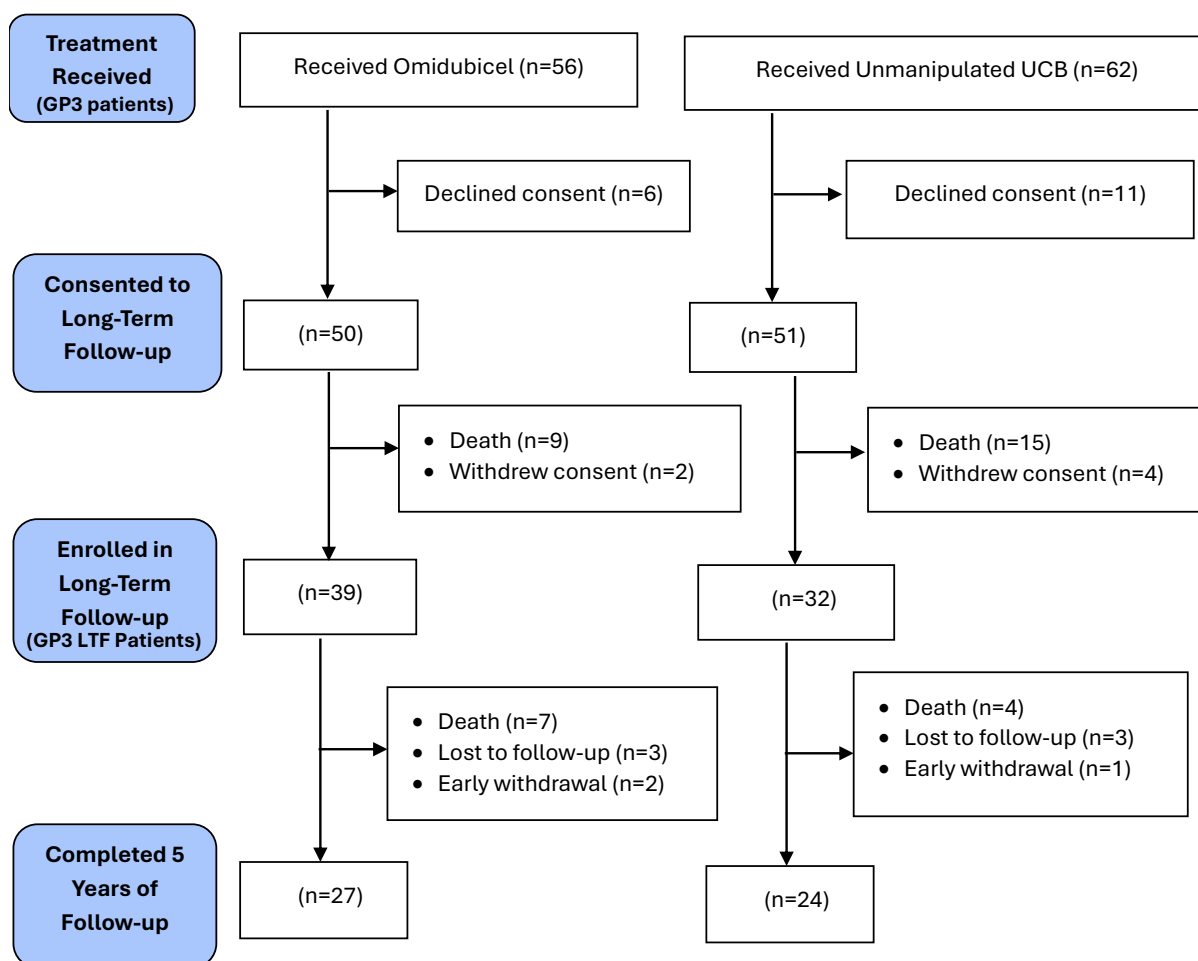
Treatment Received	Patient ID	Days of Follow-up Post-transplantation
Omidubicel	GP3BCH-001	1098
Omidubicel	GP3DCH-001	1349
Omidubicel	GP3SGH-006	1127
UCBU	GP3BCH-002	1103
UCBU	GP3CHC-001	738
UCBU	GP3DUK-010	1407

Source: [Listing 16.2.1.3](#)

Abbreviations: ID = identifier; UCBU = unmanipulated cord blood unit

Eleven patients, 7 who had received omidubicel and 4 who had received UCBU, died during the LTF sub-study ([Listing 16.2.1.1](#)); most of the deaths reported occurred between the Year 2 visit and the Year 3 visit (last status summary form entered: Year 2). Primary and secondary causes cause and day of death post-transplantation are described in [Section 12.3.1.1](#) and displayed in [Table 17](#).

**Figure 1: CONSORT Diagram**



Source: [Figure 14.1.1](#)

n = number of patients

Abbreviation: UCB = umbilical cord blood

## 10.2. Protocol Deviations

### 10.2.1. Updated Protocol Deviations Reported During the Main Study

Throughout the main study, a total of 84 major protocol deviations (MPDs) and 861 minor protocol deviations (mpds) were reported for a total of 119/125 (95%) randomized patients. No critical deviations were reported.

Among those deviations, a total of 143 deviations (22 MPDs and 121 mpds) were noticed after the initial database lock, most of them in the context of an information request from the Food and Drug Administration (FDA) ([Clinical #4 dated 12 Sep 2023](#)) during the Biologics License Application review, requiring reviewing and adding laboratory data to the electronic data capture system on CBC and chemistry panel results performed but not initially recorded in the eCRFs. A few other deviations were noticed in the context of sites' FDA inspection readiness activities. Seventy-five of those deviations were reported in the omidubicel arm and 68 in the

UCBU arm. Therefore, the whole analysis of protocol deviations had to be updated with this new information.

In addition, a total of 2 MPDs and 7 mpds were reported among the 30 patients who consented but were screen failures. These deviations were either related to informed consent procedures (2 MPDs), inadequate documentation of consent process (3 mpds) or failure to record the patient in the electronic data capture system within the required timelines from ICF signature (4 mpds). These deviations were already reported in the main CSR and were not included in the general summary and analysis.

An average of 0.7 MPDs and 6.9 mpds were reported per randomized patient. The geographic distribution of deviations is outlined in [Table 4](#).

**Table 4: Major and Minor Protocol Deviations by Geographic Region (ITT Population; N=125)**

Region	Patients (n)	MPD (n)	MPD/Patient	mpd (n)	mpd/patient
All regions	125	84	0.7	861	6.9
US	87	56	0.6	426	4.9
Europe (Netherlands, Spain, UK)	23	21	0.9	336	14.6
RoW (Brazil, Israel, Singapore)	15	7	0.5	99	6.6

Data source: Updated [Listings 16.2.2.2](#) and [16.2.2.3](#)

N = Number of patients or number of deviations per region from the ITT Population

Abbreviations: ITT = intent-to-treat; MPD = major protocol deviation; mpd = minor protocol deviation; RoW = rest of the world; UK = United Kingdom; US = United States

The sites with the highest proportion of deviations recorded were summarized below, however as can be seen these were primarily due to small numbers of patients with an excess of deviations.

The sites with the highest number of MPDs per randomized patients are displayed in [Table 5](#).

**Table 5: Sites with Highest Number of MPDs per Randomized Patient**

Site	Number of MPDs/Patient	Number of Randomized Patients
UTR01	2.5	2
VAL01	2.3	3
RMH01	2.0	1
DCH01	1.5	2
OHS01	1.3	6
SCI01	1.3	6
HSP01	1.0	1
UTN01	1.0	2
CAL01	1.0	2
CCF01	1.0	7

Site	Number of MPDs/Patient	Number of Randomized Patients
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Data source: Updated Listings 16.2.2.2 and 16.2.2.3

Site abbreviations can be found in Appendix 16.1.3 of the main CSR

Abbreviations: MPD = major protocol deviation

The sites with the highest number of mpds per randomized patients are displayed in Table 6.

**Table 6: Sites with Highest Number of mpds per Randomized Patient**

Site	Number of mpds/Patient	Number of Randomized Patients
UTR01	28.0	2
RAB01	21.0	1
HFM01	17.0	1
VAL01	16.7	3
HSP01	16.0	1
PMC01	14.3	4
CMC01	14.0	1

Data source: Updated Listings 16.2.2.2 and 16.2.2.3

Site abbreviations can be found in Appendix 16.1.3 of the main CSR

Abbreviations: mpd = minor protocol deviation

For deviations discovered during the main study, the study teams at the sites were re-trained as necessary to avoid recurrence of deviations. Study deviations were reviewed on an ongoing basis by the Sponsor to identify recurring areas of non-compliance that could be resolved by removing or modifying the relevant requirements in subsequent protocol amendments. A total of 55 deviations were addressed as such, including 3 (3.6%) MPDs and 52 (6.0%) mpds (Updated CSR Listing 16.2.2.10).

Reporting of deviations to the local authorities (Independent Ethics Committee/Institutional Review Board [IRB] and/or competent authorities) was performed as required.

#### Changes in Research

Protocol deviations that were pre-approved by IRB/FDA (and Sponsor when applicable) were categorized as “changes in research” (Main CSR Listing 16.2.2.11). The classification as minor or major did not apply to this category. A total of 8 changes in research were documented, all granted in the United States (US): 3 patients received approval to be infused with omidubicel that did not meet product specifications; 3 changes in research were related to eligibility assessments performed out-of-window or with a result out-of-window; 1 change in research was related to a change in dose of conditioning regimen and 1 change in research was related to the use of a sample initially drawn for immune reconstitution to assess the chimerism component required for the primary endpoint.

### Deviations Related to the COVID-19 Public Health Emergency

With the emergence of the COVID-19 world health emergency, specific deviations were flagged as related to the constraints inflicted by the pandemic (Updated CSR [Listing 16.2.2.4](#)). A total of 83 such deviations were reported in 26 patients, in addition to those outlined in [Table 4](#).

All these deviations were mpds. Four of them were informed consent deviations, while 79 were related to missed assessments or assessments performed out-of-window. The deviations were not considered to have a major impact on the outcomes of the study.

[Table 7](#) provides a summary of deviations by type.

**Table 7: Deviations Type and Assigned Treatment (ITT Population; N=125)**

	Omidubicel Arm N=62		UCBU Arm N=63	
	Deviations (n)	Patients (n, %)	Deviations (n)	Patients (n, %)
Minor protocol deviations <sup>a</sup>	429	58 (93.5%)	432	60 (95.2%)
Minor deviations detected after database lock	62	29 (46.8%)	59	33 (52.4%)
Minor deviations addressed in subsequent protocol amendments	32	13 (21.0%)	20	12 (19%)
Major protocol deviations <sup>a</sup>	47	28 (45.1%)	37	30 (47.6%)
Major deviations detected after database lock	13	8 (12.9%)	9	7 (11.9%)
Major deviations addressed in subsequent protocol amendments	2	2 (3.2%)	1	1 (1.6%)
Changes in research	5	5 (8.1%)	3	3 (4.8%)
COVID-19 related deviations	33	14 (22.6%)	50	12 (19.0%)

Data source: Updated [Listings 16.2.2.2](#), [16.2.2.3](#) and [16.2.2.4](#), and [Listing 16.2.2.11](#)

N = Total number of patients per treatment arm from the ITT Population; n = Number of deviations or patients per deviation category for each treatment arm

<sup>a</sup> Not including COVID-19 related deviations or changes in research

Abbreviations: COVID-19 = coronavirus disease 2019; ITT = intent-to-treat; UCBU = unmanipulated cord blood unit

The study deviations were classified into 9 specific categories and 2 more general ones (summarized in [Table 8](#)). The majority of deviations were reported as “Other protocol procedure or assessment”, encompassing 603 deviations in 109 patients (16 MPDs and 587 mpds). These primarily included assessments that were missed or performed outside of the protocol allowed time window. Among the specific categories, 152 deviations in screening assessments or procedures were reported in 71 patients (5 MPDs and 147 mpds). A summary of the deviations by categories and assigned treatment arm is shown in [Table 8](#). Those deviations do not include COVID-19 related deviations or changes in research.

**Table 8: Deviations by Category and Assigned Treatment Arm (ITT Population; N=125)**

	Omidubicel Arm N=62		UCBU Arm N=63	
	Deviations (n)	Patients (n,%)	Deviations (n)	Patients (n,%)
All Categories <sup>a</sup>	476	58 (93.5%)	469	61 (96.8%)
Eligibility criteria violation	2	2 (3.2%)	2	2 (3.2%)
Informed consent	9	8 (12.9%)	7	5 (7.9%)
Infusion day <sup>b</sup>	47	31 (59.6%)	20	16 (28.6%)
Other	5	5 (8.1%)	1	1 (1.6%)
Other protocol and procedure assessment	285	54 (87.1%)	318	55 (87.3%)
Received excluded concomitant medication	0	NA	1	1 (1.6%)
Received non-randomized/OOS product	0	NA	1	1 (1.6%)
Reporting timelines	28	18 (29.0%)	28	19 (30.2%)
Safety	2	2 (3.2%)	0	NA
Screening assessment or procedure	81	35 (56.5%)	71	36 (57.1%)
Study medication and administration	17	15 (24.2%)	20	15 (23.8%)

Data source: Updated Listings 16.2.2.2 and 16.2.2.3

N = Total number of patients per treatment arm from the ITT Population; n = Number of deviations or patients per deviation category for each treatment arm

<sup>a</sup> Not including COVID-19 related deviations and changes in research

<sup>b</sup> For infusion day deviations, the data is provided according to the treatment actually received rather than the randomized treatment – Omidubicel (N=52) and UCBU (N=56)

Abbreviations: ITT = intent-to-treat; OOS = out of specifications; UCBU = unmanipulated cord blood unit

A total of 14 MPDs and 53 mpds were reported as infusion day deviations in patients treated with either omidubicel or UCBU. Most frequently, infusion day deviations were related to the dosing of pre-medications administered as infusion support (19 deviations in omidubicel patients and 16 deviations in UCBU patients). Among the patients treated with omidubicel, 10 deviations were reported for temperature excursions during storage or shipment and 6 deviations were related to the infusion not performed per protocol. Only 2 such deviations were reported for the UCBU patients.

This difference was expected, since omidubicel was an experimental treatment that the centers had less experience with compared to the SOC for those who received UCBU. Omidubicel infusion required closer scrutiny to ensure correct utilization and patient safety and was therefore also associated with more deviations.

Deviations related to the infusion of omidubicel were specifically assessed for any impact on patient outcomes following transplantation. Infusion reactions, time to neutrophil engraftment, and days alive and out of hospital within 100 days post-transplantation were similar among patients with or without such deviations.

All temperature excursions during storage or internal shipment that were reported as deviations were assessed by the Sponsor during the course of the study and determined to be acceptable in terms of product safety.

In summary, updated assessment of protocol deviations did not change the overall conclusions regarding deviations, which appeared to be balanced between study arms except for infusion day deviations, which were predictably more numerous on the omidubicel arm. The deviations observed are not believed to have impacted patient safety, the overall data quality of the study, or the interpretation of the analysis results.

#### **10.2.2. Protocol Deviations During the LTF Sub-Study**

A total of 13 MPDs, all concerning the informed consent process, were reported for 9 patients at 5 clinical sites (CCF01, DCF01, DUK01, LOY01, and OHS01). These MPDs included failure to provide updated safety information, failure to obtain re-consent in a timely manner, failure to properly document the consent process, failure by a patient to complete a checkbox documenting agreement to “Optional Additional Study Procedures” during the re-consenting process, and enrollment of a patient in the LTF sub-study in spite of the patient having declined to enroll.

In addition, 5 mpds concerning the informed consent process were reported for 5 patients at 3 clinical sites (CCF01, OHS01, and SGH01). These mpds included ICF addendum process documentation completed by a staff member different from the person noted as obtaining the consent on the ICF, untimely source document completion for a patient’s re-consent, initials missing on 1 page of the ICF, pediatric ICF signed instead of adult ICF after a patient had turned 18 years of age, and LTF ICF signed instead of main study ICF while a patient was still ongoing in the main P0501 study.

One non-patient-related mpd (category: other) was reported for SCI01: a new Site Operations Manager performed study tasks prior to delegation, including eCRF completion/query resolution, IRB interactions, and Investigator File.

## 11. EFFICACY EVALUATIONS

### 11.1. Data Sets Analyzed

The analysis populations are described in Section [9.7.1.2](#).

The cumulative incidence of cGvHD, secondary graft failure, and progression/relapse, and the Kaplan-Meier statistics of peripheral blood/BM donor chimerism > 95% after Day 42, OS, DFS, GRFS, and cGRFS were analyzed in the GP3 patients overall. All other parameters were analyzed in the GP3 LTF patients alone. The analyses were descriptive only and the study was not powered to detect statistical differences between the treatment groups.

### 11.2. Demographics and Other Baseline Characteristics

#### 11.2.1. Demographics and Baseline Characteristics

Refer to the main CSR for demographics and other baseline characteristics of all patients enrolled in the main P0501 study.

Demographics and disease characteristics are summarized in [Table 9](#). Demographic data are listed by GP3 LTF patient in [Listing 16.2.4.1](#).

As summarized in [Table 9](#), demographics and baseline characteristics were well-balanced in the 2 arms. The median age of the patients in the LTF sub-study was 37 years for the omidubicel group and 37.5 years for the UCBU group. The LTF sub-study population was ethnically diverse, with over 40% identified as non-White. Acute leukemias (AML and ALL) were the most common indications for transplant, and most patients had moderate to high-risk disease. Patient ages ranged from 13 to 62 years, reflecting a study population that is representative of the general population eligible for transplant.

Eligible CBUs for the study were required to meet HLA match and cellular requirements. All CBUs were required to be antigen-level HLA-matched at 4-6/6 HLA class I (HLA-A & HLA-B, low resolution) and II (HLA-DRB1, high-resolution) loci with the patient. Most patients in the LTF sub-study had received CBUs that were HLA-mismatched at 2 loci, reflecting the utility of CBT as a mismatched unrelated stem cell source. Graft characteristics are discussed in the main P0501 CSR.

When compared to the demographics and patient characteristics in the main study (refer to the main CSR), patients in the LTF sub-study were younger and a greater proportion of patients had low-risk and moderate-risk disease in the omidubicel and UCBU groups, respectively. The distribution of patients by race and by primary diagnosis was similar between the main study and the LTF sub-study. The proportion of patients who had received omidubicel with a better (5-6/6) antigen-level HLA match was higher in the LTF sub-study than in the main study, although it should be noted that information on HLA match was obtained for the intended CBUs in the main study but was obtained for the infused CBUs in the LTF sub-study. The proportion of patients with a 4/6 antigen-level HLA match was lower in both treatment groups in the LTF sub-study when compared to the main study. The HCT-specific comorbidity index was similar between the main study and the LTF sub-study for the patients in the omidubicel group but, in the UCBU group, there was a lower proportion of patients with a score of 0 and a higher proportion of patients with a score of 1-2 in the LTF sub-study than in the main study.



**Table 9: Demographics and Baseline Data for Patients Enrolled on GP3 LTF (GP3 LTF Patients)**

		Treatment Received			
		Omidubicel (N=39)		UCBU (N=32)	
		N	%	N	%
Gender	Male	20	51.3	22	68.8
	Female	19	48.7	10	31.3
Age at Randomization (years)	Median (range)	37.0 (13 – 62)		37.5 (14 – 55)	
	12-17	7	17.9	4	12.5
	18-39	15	38.5	13	40.6
	40-65	17	43.6	15	46.9
Race	American Indian or Alaska Native	0	0.0	0	0.0
	Asian	4	10.3	5	15.6
	Black	9	23.1	4	12.5
	Native Hawaiian/Other Pacific Islander	0	0.0	1	3.1
	White	22	56.4	19	59.4
	More than one race	0	0.0	0	0.0
	Unknown/Other/Missing	4	10.3	3	9.4
Disease Risk Group	Low	12	30.8	5	15.6
	Moderate	15	38.5	18	56.3
	High/Very High	12	30.8	9	28.1
Intended Cord Blood Transplant	Single	13	33.3	10	31.3
	Double	26	66.7	22	68.8
Primary Diagnosis	ALL	12	30.8	9	28.1
	High risk first complete morphologic remission (CR1)	8	20.5	6	18.8
	Second complete morphologic remission (CR2)	4	10.3	3	9.4
	AML	20	51.3	15	46.9
	First complete morphologic remission (CR1)	12	30.8	9	28.1
	Second remission (CR2)	8	20.5	6	18.8
	CML	3	7.7	1	3.1
	Accelerated phase	1	2.6	0	0.0

		Treatment Received			
		Omidubicel (N=39)		UCBU (N=32)	
		N	%	N	%
	Chronic phase with no history of blast crisis	1	2.6	0	0.0
	Prior blast crisis currently in chronic phase or complete morphologic or molecular	1	2.6	1	3.1
	Lymphoma	1	2.6	3	9.4
	Hodgkin lymphoma: stable disease (SD)	0	0.0	1	3.1
	T-cell non-Hodgkin lymphoma: first partial remission (PR1)	0	0.0	1	3.1
	T-cell non-Hodgkin lymphoma: second complete remission (CR2)	0	0.0	1	3.1
	T-cell non-Hodgkin lymphoma: third or subsequent remission (CR3+)	1	2.6	0	0.0
	MDS	2	5.1	3	9.4
	Intermediate-1 (INT-1)	1	2.6	2	6.3
	Intermediate-2 (INT-2)	1	2.6	1	3.1
	Other rare disease	1	2.6	1	3.1
	Dendritic cell leukemia: first remission (CR1)	0	0.0	1	3.1
	Dendritic cell leukemia: second remission (CR2)	1	2.6	0	0.0
HCT-specific co-morbidity index	0	7	17.9	4	12.5
	1-2	12	30.8	12	37.5
	3+	20	51.3	16	50.0
	Missing	0	0.0	0	0.0
Antigen-level HLA match score (Received Treatment UCB #1/omidubicel)	4/6	26	66.7	21	65.6
	5/6	12	30.8	7	21.9
	6/6	1	2.6	1	3.1
	Missing/Not Applicable	0	0.0	3	9.4
Antigen-level HLA match score (Received Treatment UCB #2)	4/6	0	0.0	16	50.0
	5/6	0	0.0	5	15.6
	6/6	0	0.0	0	0.0

		Treatment Received			
		Omidubicel (N=39)		UCBU (N=32)	
		N	%	N	%
	Missing/Not Applicable	39	100.0	11	34.4
Allele-level HLA match score (Received Treatment UCB #1/omidubicel)	2/8	2	5.1	1	3.1
	3/8	5	12.8	3	9.4
	4/8	9	23.1	7	21.9
	5/8	16	41.0	11	34.4
	6/8	4	10.3	2	6.3
	7/8	2	5.1	2	6.3
	8/8	1	2.6	0	0.0
	Missing/Not Applicable	0	0.0	6	18.8
Allele-level HLA match score (Received Treatment UCB #2)	2/8	0	0.0	0	0.0
	3/8	0	0.0	2	6.3
	4/8	0	0.0	2	6.3
	5/8	0	0.0	10	31.3
	6/8	0	0.0	4	12.5
	7/8	0	0.0	2	6.3
	8/8	0	0.0	0	0.0
	Missing/Not Applicable	39	100.0	12	37.5
Conditioning Regimen	TBI-based	19	48.7	19	59.4
	Thiotepa/Busulfan/Fludarabine	20	51.3	13	40.6

Source: [Table 14.1.2](#) and [Table 14.1.3](#)

N = Number of GP3 LTF patients who received the treatment

Abbreviations: ALL = acute lymphoblastic leukemia; AML = acute myelogenous leukemia; CML = chronic myelogenous leukemia; CR = complete remission; HCT = hematopoietic cell transplant; HLA = human leukocyte antigen; INT = intermediate; MDS = myelodysplastic syndrome; PR = partial remission; SD = stable disease; TBI = total body irradiation; UCB = umbilical cord blood; UCBU = unmanipulated cord blood unit

### 11.2.2. Medical History

Refer to the main CSR for a complete medical history of the patients in the main P0501 study.

The primary diagnoses reported for the patients enrolled in the LTF sub-study are summarized in [Table 9](#), listed by patient in [Listing 16.2.4.1](#), and described in [Section 11.2.1](#).

### 11.2.3. Prior and Concomitant Medications

Refer to the main CSR for prior and concomitant medications reported during the main P0501 study.

Concomitant medications were not collected for the LTF study.

### 11.3. Measurements of Treatment Compliance

Not applicable for the LTF sub-study. Refer to the main CSR for treatment compliance information from the main P0501 study.

### 11.4. Efficacy Results and Tabulations of Individual Patient Data

#### 11.4.1. Analysis of Efficacy

Refer to the main CSR for efficacy results from the main P0501 study.

##### 11.4.1.1. Peripheral Blood/Bone Marrow Chimerism

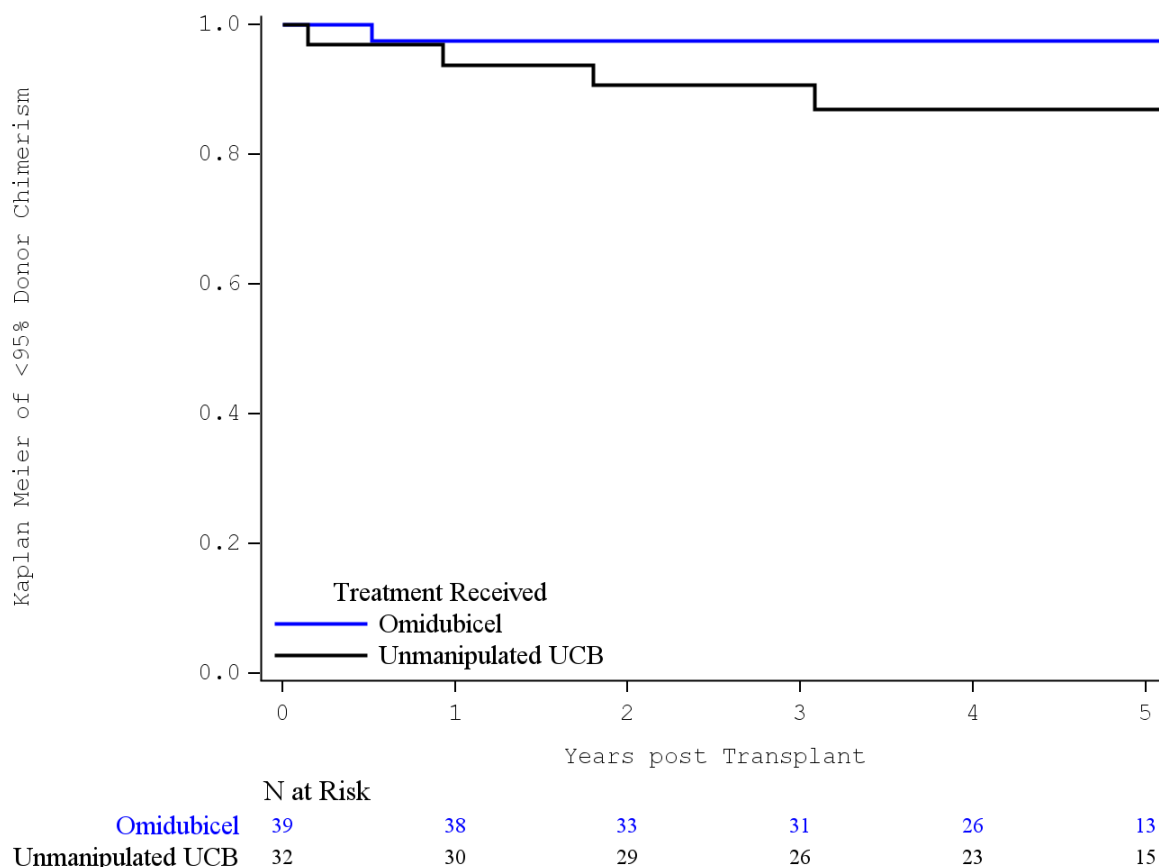
Individual donor chimerism results are listed by patient in [Listing 16.2.6.1](#).

The patients who had progressed/relapsed, had graft failure, or who died before the target day for Year 2, 3, 4, and 5 were excluded from the chimerism analysis after that event. Two patients who had received UCBU had < 95% donor chimerism during the LTF sub-study ([Listing 16.2.6.1](#)):

- [Patient GP3LOY-004](#) had 92% cells from UCBU #1 in whole blood at Year 2 post-transplantation. This patient had progression/relapse of primary disease on Day 575 post-transplantation (see Section [11.4.1.3](#) and [Listing 16.2.6.3](#)) and died on Day 1206 post-transplantation (see Section [12.3.1.1](#) and [Listing 16.2.1.1](#)).
- [Patient GP3UMN-009](#) had 93% cells from UCBU#2 in whole blood at Year 3 post-transplantation. This patient was still alive as of Day 1710 post-transplantation ([Listing 16.2.1.1](#)).

The Kaplan-Meier probability of donor peripheral blood/BM chimerism < 95% after Day 42 post-transplantation for the GP3 LTF patients who received omidubicel was 0.97 from Year 2 through Year 5 post-transplantation ([Table 14.2.1.1](#) and [Figure 2](#)). The Kaplan-Meier probability of peripheral blood/BM chimerism < 95% after Day 42 for the GP3 LTF patients who received UCBU decreased over time from 0.91 by Year 2 to 0.87 by Year 4 and Year 5 post-transplantation.

**Figure 2: Kaplan-Meier of Donor Peripheral Blood/Bone Marrow Chimerism <95% After Day 42 (GP3 LTF Patients)**



Source: Figure 14.2.1.1

N = Number of GP3 LTF patients

Note: Data from the GP3 study and the GP3 LTF sub-study are included.

Transplantation was Day 0.

Abbreviation: UCB = umbilical cord blood

The Kaplan-Meier probability of peripheral blood/BM donor chimerism < 95% after Day 42 post-transplantation for the GP3 patients was similar to that observed for the GP3 LTF patients alone in both treatment groups (Table 14.2.1.2 and Table 14.2.1.1).

#### 11.4.1.2. Overall Survival

The number of deaths by Year 2, 3, 4, and 5 post-transplantation and the Kaplan-Meier probabilities of OS for each year are summarized by treatment group for the GP3 LTF patients in Table 10, and the Kaplan-Meier curves for OS for the GP3 LTF patients are shown in Figure 3. The patients' vital status and primary and secondary causes of death are listed individually in Listing 16.2.1.1.

Among the 39 GP3 LTF patients who received omidubicel, there were 7 deaths between Year 2 and Year 5 post-transplantation (Listing 16.2.1.1). Primary and secondary causes and day of death post-transplantation are described in Section 12.3.1.1.

Among the 32 GP3 LTF patients who received UCBU, there were 4 deaths between Year 2 and Year 5 post-transplantation ([Listing 16.2.1.1](#)). Primary and secondary causes and day of death post-transplantation are described in Section [12.3.1.1](#).

The Kaplan-Meier probability of OS decreased starting between Year 1 and Year 2 post-transplantation in the omidubicel group and between Year 2 and Year 3 post-transplantation in the UCBU group ([Figure 3](#)) but was stable from between Year 3 and Year 4 up to Year 5 in the patients who received omidubicel.

By Year 2 post-transplantation, the Kaplan-Meier probability of OS was 0.87 in the omidubicel group and 1.00 in the UCBU group. By Year 3, Year 4, and Year 5 post-transplantation, the Kaplan-Meier probability of OS was 0.85, 0.82, and 0.82, respectively, in the omidubicel group and 0.93, 0.90, and 0.86, respectively, in the UCBU group ([Table 10](#)).

**Table 10: Overall Survival (GP3 LTF Patients)**

	Treatment Received			
	Omidubicel (N=39)		UCBU (N=32)	
	Cumulative Number of Patients with an Event	Kaplan-Meier	Cumulative Number of Patients with an Event	Kaplan-Meier
Year 1 Post-transplantation	0	1.00	0	1.00
Year 2 Post-transplantation	5	0.87	0	1.00
Year 3 Post-transplantation	6	0.85	2	0.93
Year 4 Post-transplantation	7	0.82	3	0.90
Year 5 Post-transplantation	7	0.82	4	0.86

Source: [Table 14.2.2.1](#)

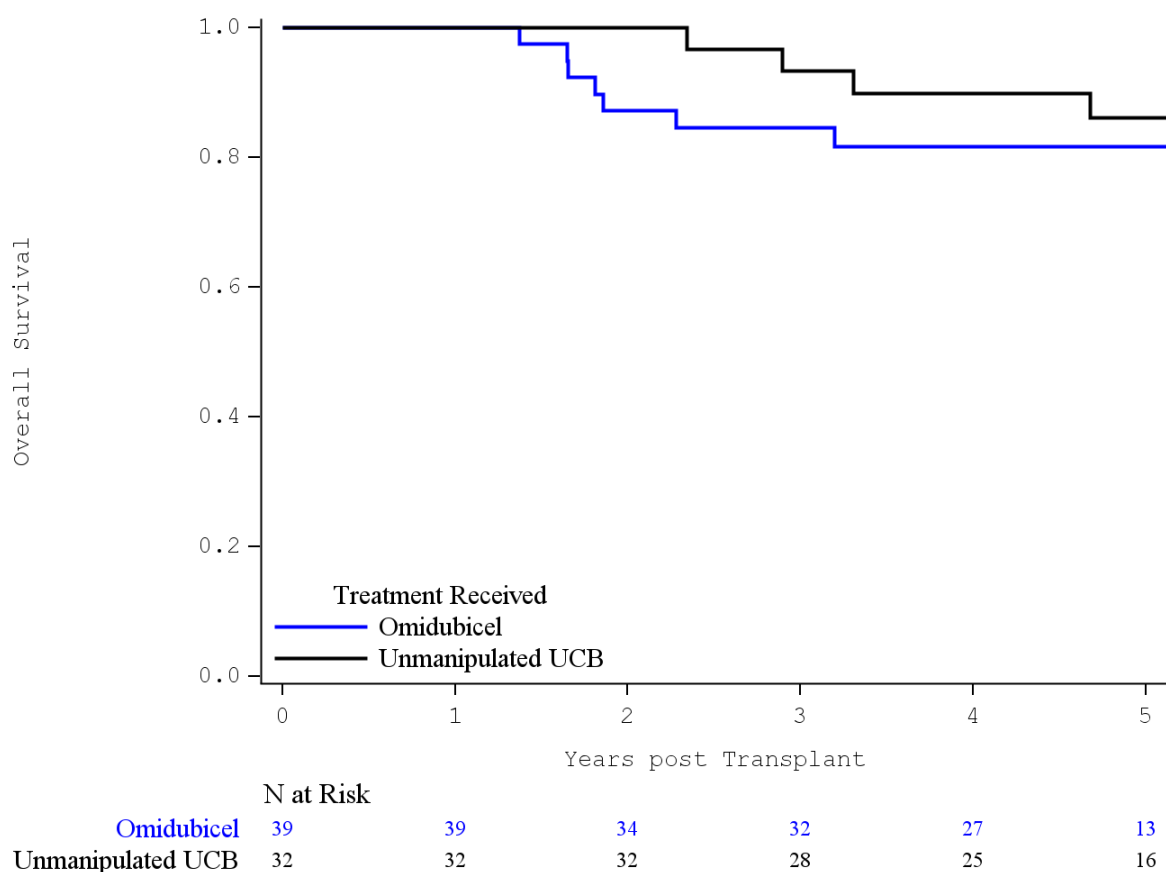
N= Number of GP3 LTF patients who received the treatment

Note: Data from the GP3 study and the GP3 LTF sub-study are included.

Transplantation was Day 0.

Abbreviation: UCBU = unmanipulated cord blood unit

**Figure 3: Kaplan-Meier of Overall Survival (GP3 LTF Patients)**



Source: [Figure 14.2.2.1](#)

N = Number of GP3 LTF patients

Note: Data from the GP3 study and the GP3 LTF sub-study are included.

Transplantation was Day 0.

Abbreviation: UCB = umbilical cord blood

The Kaplan-Meier probability of OS was analyzed for the GP3 patients ([Table 11](#) and [Figure 4](#)), incorporating data from the patients in the main study. As expected based on the results of the main study, there was a trend towards a higher probability of OS in the omidubicel arm within the first 2 years of follow-up, but the curves appear similar during later years of follow-up reflecting the LTF population.

**Table 11: Overall Survival (GP3 and GP3 LTF Patients)**

	Treatment Received			
	Omidubicel (N=56)		UCBU (N=62)	
	Cumulative Number of Patients with an Event	Kaplan-Meier	Cumulative Number of Patients with an Event	Kaplan-Meier
Year 1 Post-transplantation	14	0.75	23	0.63
Year 2 Post-transplantation	19	0.65	23	0.63
Year 3 Post-transplantation	20	0.63	25	0.59
Year 4 Post-transplantation	21	0.61	26	0.57
Year 5 Post-transplantation	21	0.61	27	0.54

Source: [Table 14.2.2.2](#)

N= Number of GP3 patients who received the treatment

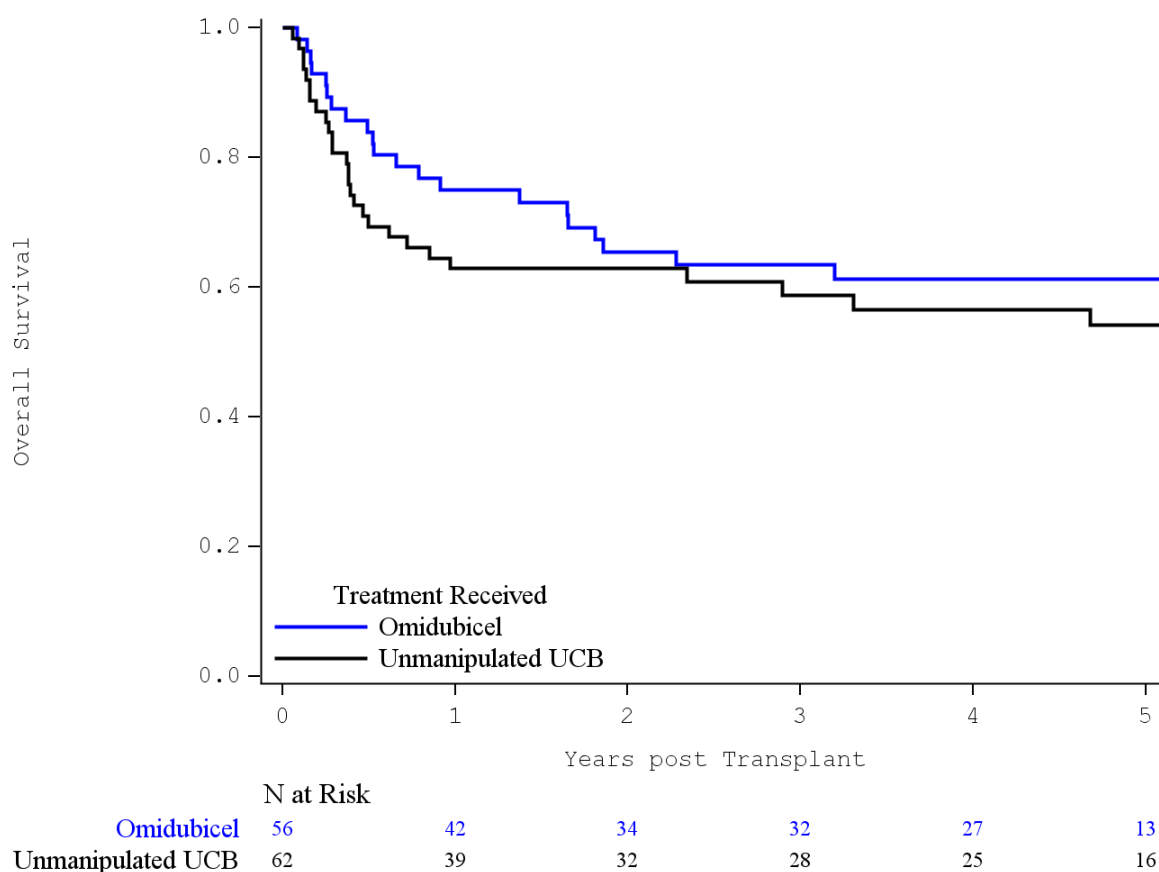
Note: Data from the GP3 study and the GP3 LTF sub-study are included.

Transplantation was Day 0.

Abbreviation: UCBU = unmanipulated cord blood unit



**Figure 4: Kaplan-Meier of Overall Survival (GP3 and GP3 LTF Patients)**



Source: [Figure 14.2.2.2](#)

N = Number of GP3 patients

Note: Data from the GP3 study and the GP3 LTF sub-study are included.

Transplantation was Day 0.

Abbreviation: UCB = umbilical cord blood

### 11.4.1.3. Disease Progression/Relapse

The cumulative number of GP3 LTF patients with disease progression/relapse events and the cumulative incidence of disease progression/relapse are summarized in [Table 12](#) and the cumulative incidence of disease progression/relapse is displayed in [Figure 5](#). The GP3 LTF patients with disease progression/relapse during the GP3 main study are listed in [Listing 16.2.6.2](#) and the GP3 LTF patients with disease progression/relapse during the LTF sub-study are listed in [Listing 16.2.6.3](#).

Between Year 2 and Year 5 post-transplantation, 2 patients who had received omidubicel experienced disease progression/relapse ([Listing 16.2.6.3](#)): [Patient GP3DFC-008](#) had relapse/progression of primary disease (T cell non-Hodgkin lymphoma; see [Listing 16.2.4.1](#)) at Day 432 post-transplantation and [Patient GP3LOY-006](#) had relapse/progression of primary disease (AML; see [Listing 16.2.4.1](#)) at Day 969 post-transplantation.

Between Year 2 and Year 5 post-transplantation, 1 patient who had received UCBU experienced disease progression/relapse ([Listing 16.2.6.3](#)): [Patient GP3LOY-004](#) had relapse/progression of primary disease (T cell non-Hodgkin lymphoma; see [Listing 16.2.4.1](#)) at Day 575 post-transplantation.

The cumulative incidence of disease progression/relapse increased starting between Year 0 (time of transplantation) and Year 1 post-transplantation in both treatment groups ([Figure 5](#)) but was stable from between Year 2 and Year 3 up to Year 5 in the patients who received omidubicel and from between Year 1 and Year 2 up to Year 5 in the patients who received UCBU.

By Year 2 post-transplantation, the cumulative incidence of disease progression/relapse was 0.18 in the omidubicel group and 0.09 in the UCBU group. By Year 3, Year 4, and Year 5 post-transplantation, the cumulative incidence of disease progression/survival was 0.21 in the omidubicel group and 0.09 in the UCBU group ([Table 12](#)).

**Table 12: Cumulative Incidence of Progression/Relapse (GP3 LTF Patients)**

	Treatment Received			
	Omidubicel (N=39)		UCBU (N=32)	
	Cumulative Number of Patients with an Event	Cumulative Incidence	Cumulative Number of Patients with an Event	Cumulative Incidence
Year 1 Post-transplantation	6	0.15	2	0.06
Year 2 Post-transplantation	7	0.18	3	0.09
Year 3 Post-transplantation	8	0.21	3	0.09
Year 4 Post-transplantation	8	0.21	3	0.09
Year 5 Post-transplantation	8	0.21	3	0.09

Source: [Table 14.2.3.1](#)

N = Number of GP3 LTF patients who received the treatment

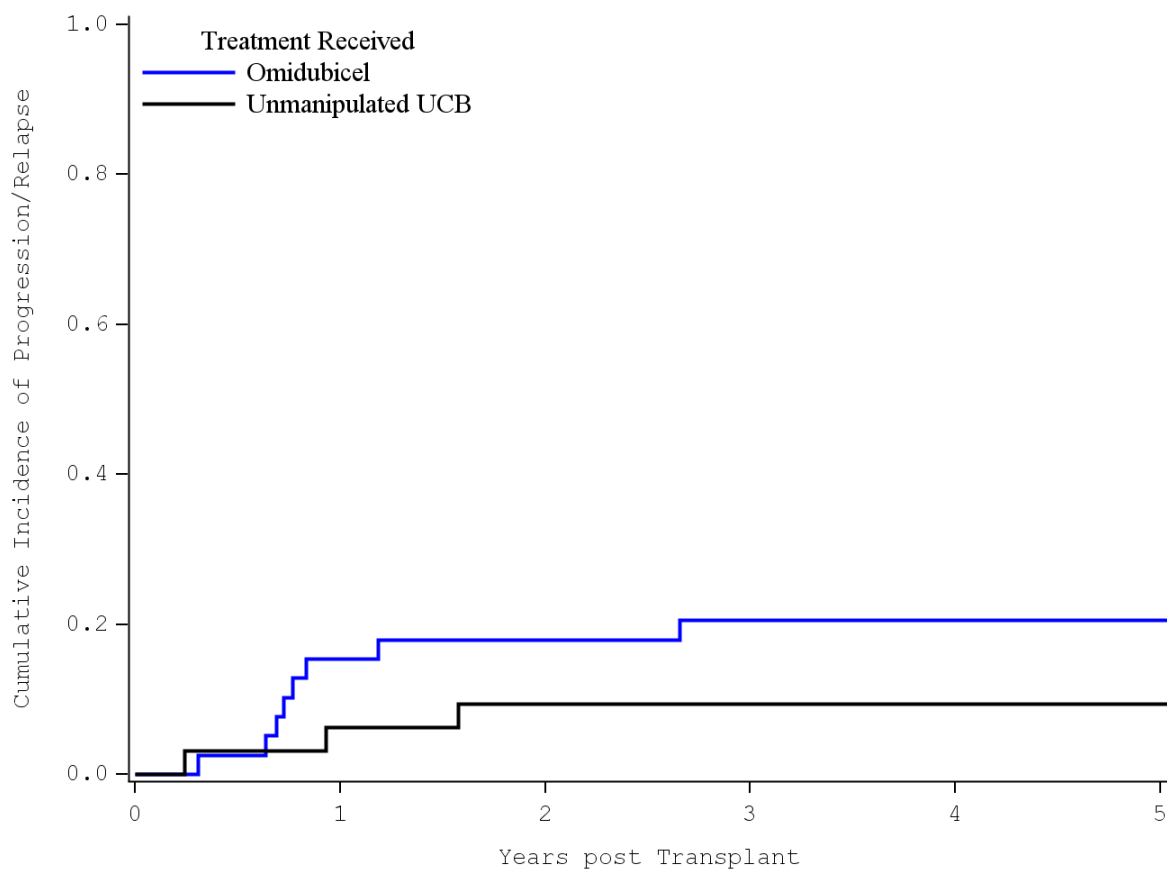
Note: Data from the GP3 study and the GP3 LTF sub-study are included.

Transplantation was Day 0.

Death without relapse was a competing risk.

Abbreviation: UCBU = unmanipulated cord blood unit

**Figure 5: Cumulative Incidence of Progression/Relapse (GP3 LTF Patients)**



Source: [Figure 14.2.3.1](#)

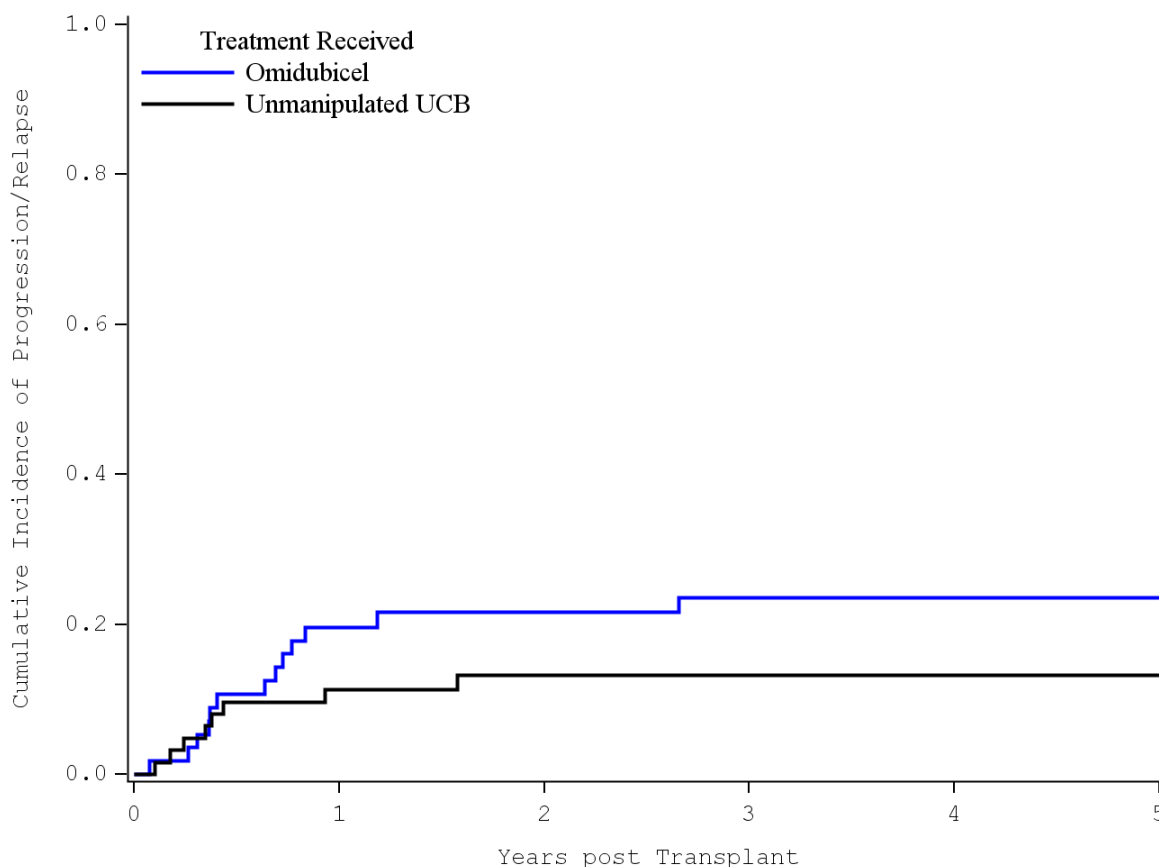
Note: Data from the GP3 study and the GP3 LTF sub-study are included.

Transplantation was Day 0.

Abbreviation: UCB = umbilical cord blood

The cumulative incidence of disease progression/relapse was slightly higher from Year 2 through Year 5 post-transplantation in the GP3 patients ([Table 14.2.3.2](#) and [Figure 6](#)) when compared to the cumulative incidence of disease progression/relapse in the GP3 LTF patients alone ([Table 12](#) and [Figure 5](#)).

**Figure 6: Cumulative Incidence of Progression/Relapse (GP3 and GP3 LTF Patients)**



Source: [Figure 14.2.3.2](#)

Note: Data from the GP3 study and the GP3 LTF sub-study are included.

Transplantation was Day 0.

Abbreviation: UCB = umbilical cord blood

#### 11.4.1.4. Disease-free Survival

The number of patients with death or relapse/progression by Year 2, 3, 4, and 5 post-transplantation and the Kaplan-Meier probabilities of DFS for each year are summarized by treatment group for the GP3 LTF patients in [Table 13](#), and the Kaplan-Meier curves for DFS for the GP3 LTF patients are shown in [Figure 7](#). The patients' vital status and primary and secondary causes of death are listed individually in [Listing 16.2.1.1](#), and the patients whose disease relapsed/progressed are listed in [Listing 16.2.6.3](#).

Between Year 2 and Year 5 post-transplantation, among the 39 GP3 LTF patients who received omidubicel, there were 7 deaths (see [Section 12.3.1.1](#) and [Listing 16.2.1.1](#)) and 2 patients had disease relapse/progression (see [Section 11.4.1.3](#) and [Listing 16.2.6.3](#)). Note: 1 additional patient who received omidubicel ([Patient GP3BCH-001](#)) had disease relapse/progression during the main P0501 study, before entering the LTF sub-study, and is thus not described in [Listing 16.2.6.3](#), but is counted in [Table 13](#).

Between Year 2 and Year 5 post-transplantation, among the 32 GP3 LTF patients who received UCBU there were 4 deaths (see Section 12.3.1.1 and Listing 16.2.1.1) and 1 patient had disease relapse/progression (see Section 11.4.1.3 and Listing 16.2.6.3).

The Kaplan-Meier probability of DFS decreased starting between Year 1 and Year 2 post-transplantation in both treatment groups (Figure 7) but was stable from Year 3 to Year 5 for the patients who received omidubicel and from Year 3 to between Year 4 and Year 5 for the patients who received UCBU.

By Year 2, post-transplantation, the Kaplan-Meier probability of DFS for the GP3 LTF patients who received omidubicel was 0.77, and at Year 3, Year 4, and Year 5 post-transplantation, it was 0.74. By Year 2 post-transplantation, the Kaplan-Meier probability of DFS for the GP3 LTF patients who received UCBU was 0.91; by Year 3 and Year 4 post-transplantation, it was 0.87 and by Year 5 post-transplantation, it was 0.83 (Table 13).

**Table 13: Disease-free Survival (GP3 LTF Patients)**

	Treatment Received			
	Omidubicel (N=39)		UCBU (N=32)	
	Cumulative Number of Patients with an Event	Kaplan-Meier	Cumulative Number of Patients with an Event	Kaplan-Meier
Year 1 Post-transplantation	6	0.85	2	0.94
Year 2 Post-transplantation	9	0.77	3	0.91
Year 3 Post-transplantation	10	0.74	4	0.87
Year 4 Post-transplantation	10	0.74	4	0.87
Year 5 Post-transplantation	10	0.74	5	0.83

Source: Table 14.2.4.1

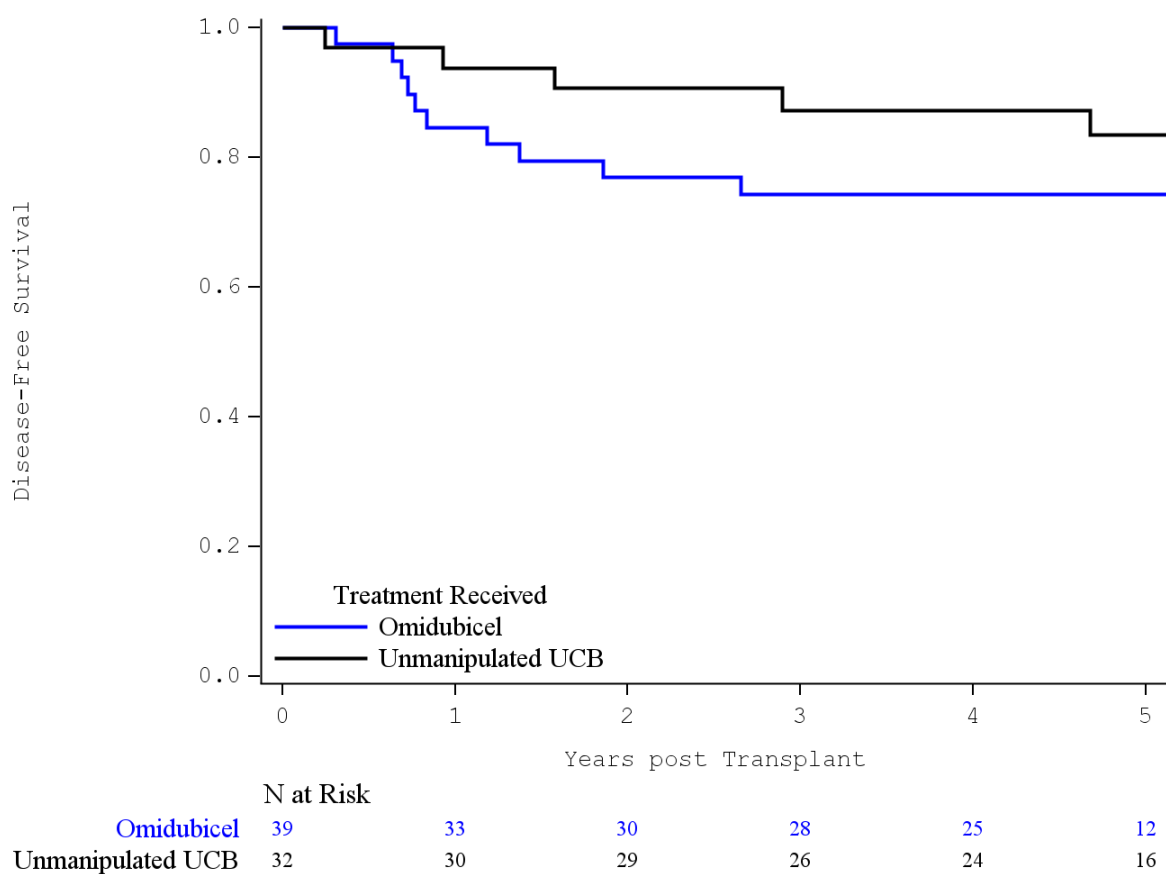
N= Number of GP3 LTF patients who received the treatment

Note: Data from the GP3 study and the GP3 LTF sub-study are included.

Transplantation was Day 0.

Abbreviation: UCBU = unmanipulated cord blood unit

**Figure 7: Kaplan-Meier of Disease-free Survival (GP3 LTF Patients)**



Source: [Figure 14.2.4.1](#)

N = Number of GP3 LTF patients

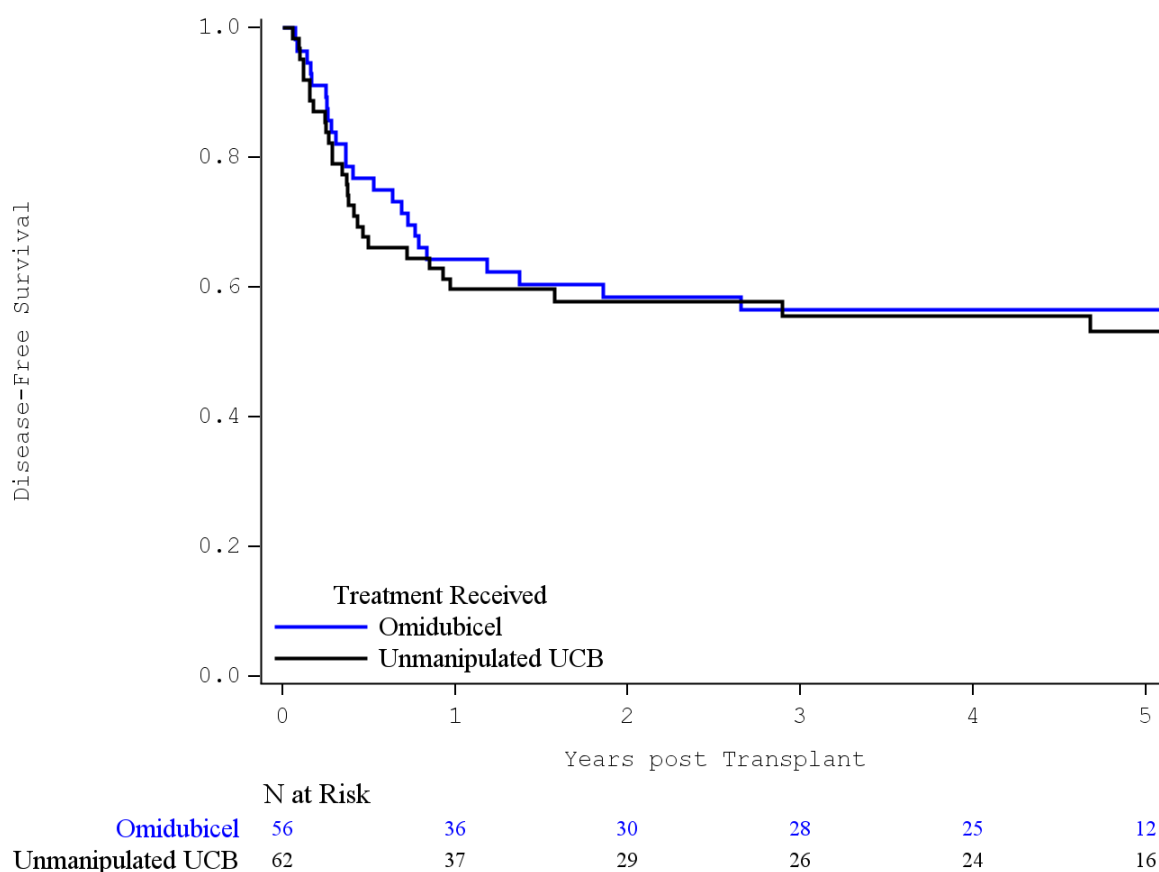
Note: Data from the GP3 study and the GP3 LTF sub-study are included.

Transplantation was Day 0.

Abbreviation: UCB = umbilical cord blood

The Kaplan-Meier probability of DFS analyzed for the GP3 patients ([Table 14.2.4.2](#) and [Figure 8](#)), incorporating data from the main study, demonstrated no difference in DFS between the 2 arms over the 5 year follow-up period.

**Figure 8: Kaplan-Meier of Disease-free Survival (GP3 and GP3 LTF Patients)**



Source: [Figure 14.2.4.2](#)

N = Number of GP3 patients

Note: Data from the GP3 study and the GP3 LTF sub-study are included.

Transplantation was Day 0.

Abbreviation: UCB = umbilical cord blood

#### 11.4.1.5. GvHD-free, Relapse-free Survival

The number of patients with aGvHD Grade III-IV, cGvHD, death, or relapse/progression by Year 2, 3, 4, and 5 post-transplantation and the Kaplan-Meier probabilities of GRFS for each year are summarized by treatment group for the GP3 LTF patients in [Table 14](#), and the Kaplan-Meier curves for GRFS for the GP3 LTF patients are shown in [Figure 9](#). The patients' vital status and primary and secondary causes of death are listed individually in [Listing 16.2.1.1](#), the patients' cGvHD status is listed individually in [Listing 16.2.9.3](#), the patients whose disease relapsed/progressed during the LTF sub-study are listed in [Listing 16.2.6.3](#). The patients' aGvHD Grade III-IV status is listed individually in [Listing 16.2.6.9 of the main CSR](#).

By Year 5 post-transplantation, a total of 28 patients who had received omidubicel and 17 patients who had received UCBU had died, experienced disease progression/relapse, or developed aGvHD Grade II-IV or cGvHD ([Table 14](#)).

The Kaplan-Meier probability of GRFS decreased starting between Year 0 (time of transplantation) and Year 1 post-transplantation in both treatment groups (Figure 9) but was stable from between Year 3 and Year 4 up to Year 5 for the patients who received omidubicel and from between Year 1 and Year 2 up to Year 5 for the patients who received UCBU.

By Year 2 and Year 3 post-transplantation, the Kaplan-Meier probability of GRFS for the GP3 LTF patients who received omidubicel was 0.38 and 0.33, respectively, and at Year 4 and Year 5 post-transplantation, it was 0.28. From Year 2 through Year 5 post-transplantation, the Kaplan-Meier probability of GRFS for the GP3 LTF patients who received UCBU was 0.47 (Table 14).

**Table 14: GRFS (GP3 LTF Patients)**

	Treatment Received			
	Omidubicel (N=39)		UCBU (N=32)	
	Cumulative Number of Patients with an Event	Kaplan-Meier	Cumulative Number of Patients with an Event	Kaplan-Meier
Year 1 Post-transplantation	22	0.44	15	0.53
Year 2 Post-transplantation	24	0.38	17	0.47
Year 3 Post-transplantation	26	0.33	17	0.47
Year 4 Post-transplantation	28	0.28	17	0.47
Year 5 Post-transplantation	28	0.28	17	0.47

Source: Table 14.2.5.1

N= Number of GP3 LTF patients who received the treatment

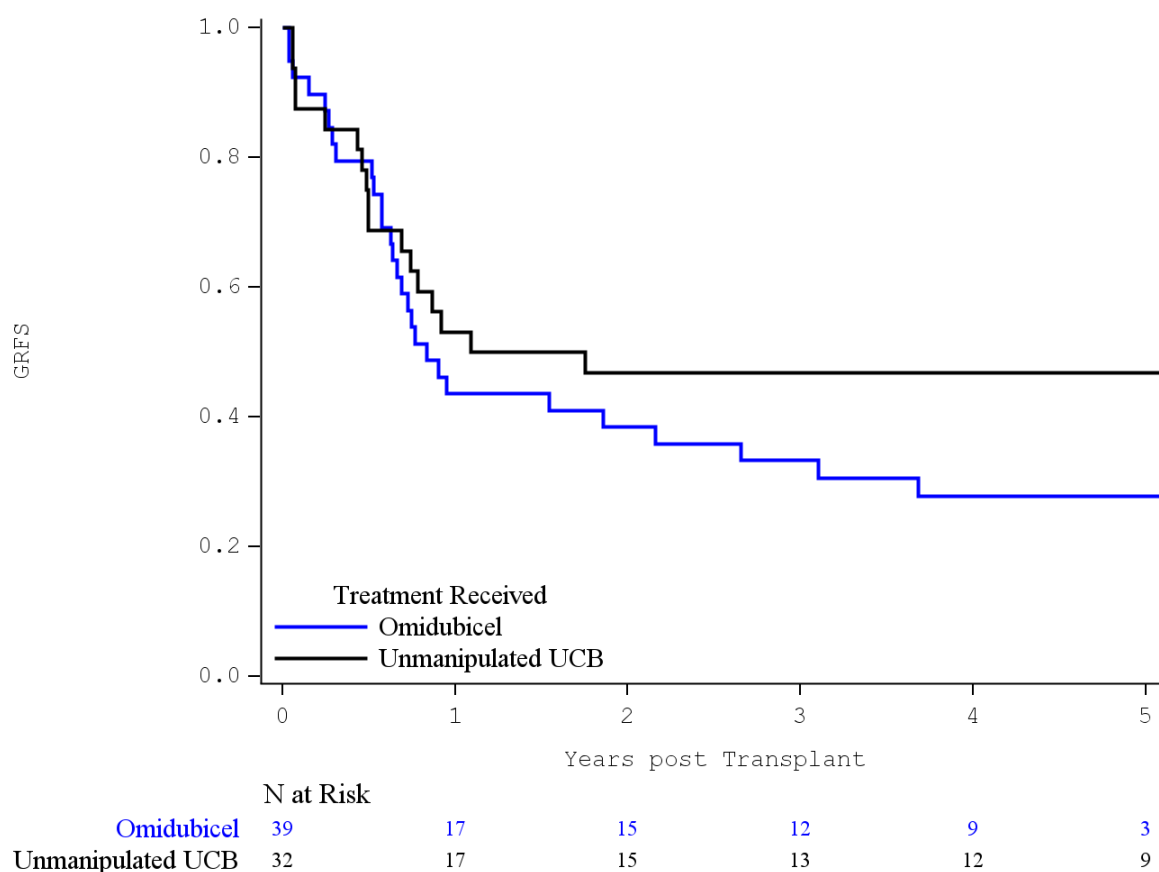
Note: Data from the GP3 study and the GP3 LTF sub-study are included.

Transplantation was Day 0.

Abbreviation: UCBU = unmanipulated cord blood unit



**Figure 9: Kaplan-Meier of GRFS (GP3 LTF Patients)**



Source: [Figure 14.2.5.1](#)

N = Number of GP3 LTF patients

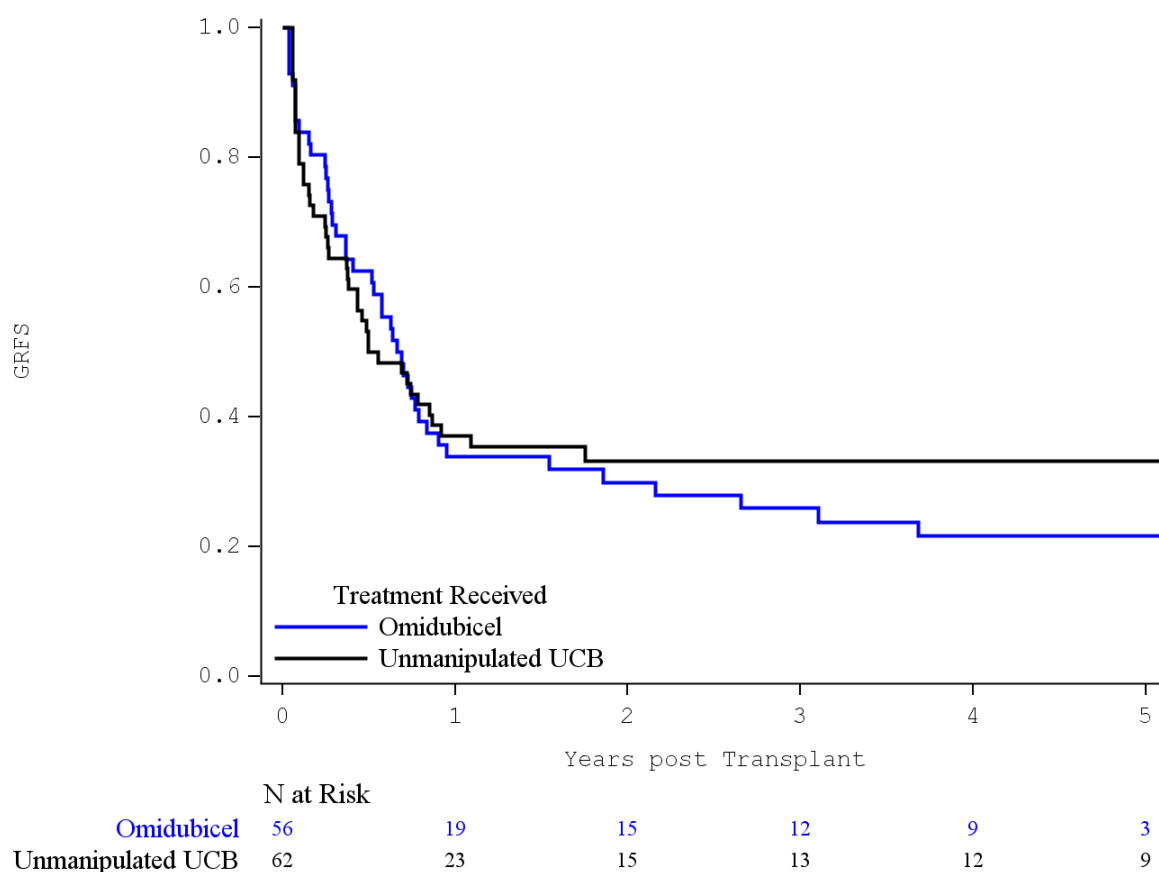
Note: Data from the GP3 study and the GP3 LTF sub-study are included.

Transplantation was Day 0.

Abbreviation: UCB = umbilical cord blood

The Kaplan-Meier probability of GRFS incorporating data from the main study showed a similar pattern ([Table 14.2.5.2](#) and [Figure 10](#)), with slightly higher rates of GRFS when the LTF population was considered alone. This was expected, as the LTF patients had survived at least 1 year post-transplantation when enrolled in the LTF sub-study ([Table 14](#) and [Figure 9](#)).

**Figure 10: Kaplan-Meier of GRFS (GP3 and GP3 LTF Patients)**



Source: [Figure 14.2.5.2](#)

N = Number of GP3 patients

Note: Data from the GP3 study and the GP3 LTF sub-study are included.

Transplantation was Day 0.

Abbreviation: UCB = umbilical cord blood

#### 11.4.1.6. cGvHD-free, Relapse-free Survival

The number of patients with cGvHD, death, or relapse/progression by Year 2, 3, 4, and 5 post-transplantation and the Kaplan-Meier probabilities of cGRFS for each year are summarized by treatment group for the GP3 LTF patients in [Table 15](#), and the Kaplan-Meier curves for cGRFS for the GP3 LTF patients are shown in [Figure 11](#). The patients' vital status and primary and secondary causes of death are listed individually in [Listing 16.2.1.1](#), the patients' cGvHD status is listed individually in [Listing 16.2.9.3](#), the GP3 LTF patients with disease progression/relapse during the GP3 main study are listed in [Listing 16.2.6.2](#) and the GP3 LTF patients with disease progression/relapse are listed in [Listing 16.2.6.3](#).

By Year 5 post-transplantation, a total of 28 patients who had received omidubicel and 16 patients who had received UCBU had died, experienced disease progression/relapse, or developed cGvHD ([Table 15](#)).

The Kaplan-Meier probability of cGRFS decreased starting between Year 0 (time of transplantation) and Year 1 post-transplantation in both treatment groups ([Figure 11](#)) but was stable from between Year 3 and Year 4 up to Year 5 for the patients who received omidubicel and from Year 3 to Year 5 for the patients who received UCBU.

By Year 2 and Year 3 post-transplantation, the Kaplan-Meier probability of GRFS for the GP3 LTF patients who received omidubicel was 0.38 and 0.33, respectively, and from Year 4 to Year 5 post-transplantation, it was 0.28. At Year 2 post-transplantation, the Kaplan-Meier probability of cGRFS for the GP3 LTF patients who received UCBU was 0.53, and from Year 3 through Year 5 post-transplantation, it was 0.50 ([Table 15](#)).

**Table 15: cGRFS (GP3 LTF Patients)**

	Treatment Received			
	Omidubicel (N=39)		UCBU (N=32)	
	Cumulative Number of Patients with an Event	Kaplan-Meier	Cumulative Number of Patients with an Event	Kaplan-Meier
Year 1 Post-transplantation	21	0.46	13	0.59
Year 2 Post-transplantation	24	0.38	15	0.53
Year 3 Post-transplantation	26	0.33	16	0.50
Year 4 Post-transplantation	28	0.28	16	0.50
Year 5 Post-transplantation	28	0.28	16	0.50

Source: [Table 14.2.6.1](#)

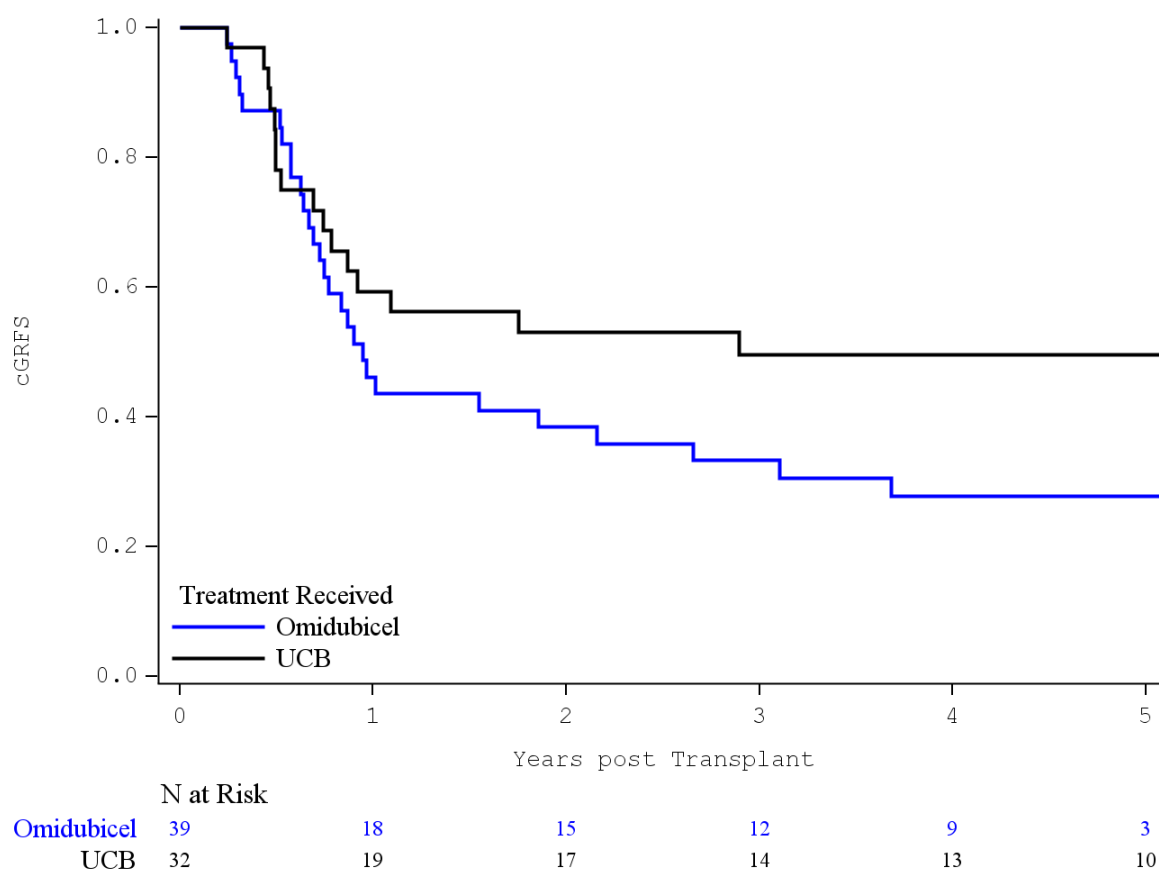
N = Number of GP3 LTF patients who received the treatment

Note: Data from the GP3 study and the GP3 LTF sub-study are included.

Transplantation was Day 0.

Abbreviation: UCBU = unmanipulated cord blood unit

**Figure 11: Kaplan-Meier of cGRFS (GP3 LTF Patients)**



Source: [Figure 14.2.6.1](#)

N = Number of GP3 LTF patients

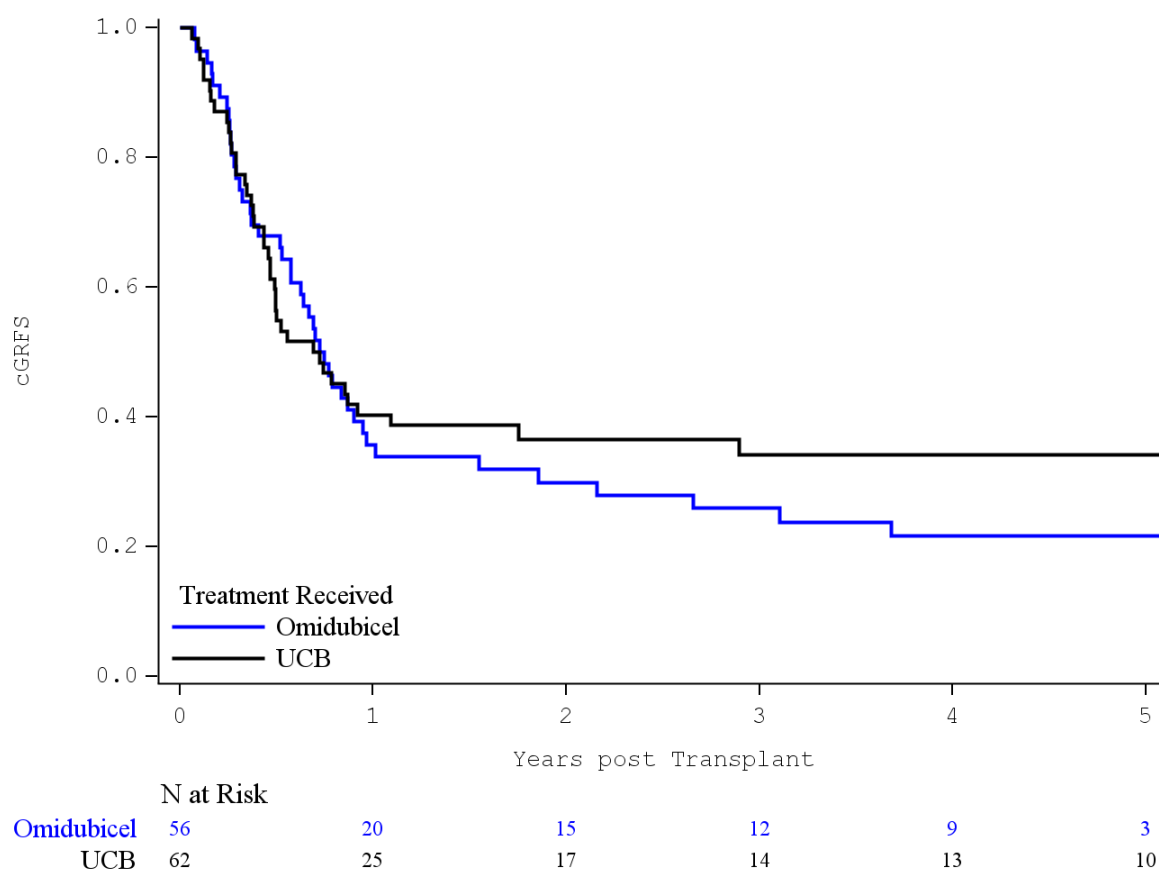
Note: Data from the GP3 study and the GP3 LTF sub-study are included.

Transplantation was Day 0.

Abbreviation: UCB = umbilical cord blood

The Kaplan-Meier probability of GRFS analyzed in the GP3 patients, incorporating data from the main study ([Table 14.2.6.2](#) and [Figure 12](#)) showed a similar pattern, although GRFS was slightly lower than in the GP3 LTF patients alone ([Table 15](#) and [Figure 11](#)). This was expected, as patients in the LTF had survived at least 1 year post-transplantation prior to entering the LTF sub-study.

**Figure 12: Kaplan-Meier of cGRFS (GP3 and GP3 LTF Patients)**



Source: [Figure 14.2.6.2](#)

N = Number of GP3 patients

Note: Data from the GP3 study and the GP3 LTF sub-study are included.

Transplantation was Day 0.

Abbreviation: UCB = umbilical cord blood

#### 11.4.1.7. Immune Reconstitution

Immune reconstitution results are summarized by cell type (CD3+, CD4+, CD8+, CD19+, and CD56+/16+), by treatment group, and by year for the GP3 LTF patients in [Table 16](#). Individual immune reconstitution results are listed by patient in [Listing 16.2.6.4](#).

Immune reconstitution data were reported in only a small number of patients. Lymphocyte subsets remained at a median around or above 200 cells/ $\mu$ L, showing sustained immune reconstitution throughout 5 years post-transplantation for most patients in both groups ([Table 16](#)).

**Table 16: Immune Reconstitution (GP3 LTF Patients)**

Visit	Marker	Treatment Received	N	Minimum	Median	Maximum
Year 2 PT	CD3+ (cells/ $\mu$ L)	Omidubicel	11	283	1323.0	2922
		UCBU	7	270	913.0	2770

Visit	Marker	Treatment Received	N	Minimum	Median	Maximum
	CD4+ (cells/ $\mu$ L)	Omidubicel	10	264	706.0	1365
		UCBU	7	240	657.0	833
	CD8+ (cells/ $\mu$ L)	Omidubicel	10	18	555.0	1799
		UCBU	7	32	227.0	1870
	CD19+ (cells/ $\mu$ L)	Omidubicel	12	0	1201.5	3120
		UCBU	7	581	910.0	1503
	CD56+/16+ (cells/ $\mu$ L)	Omidubicel	11	27	283.0	1566
		UCBU	7	135	226.0	530
Year 3 PT	CD3+ (cells/ $\mu$ L)	Omidubicel	10	423	1320.5	2050
		UCBU	5	44	1260.0	2426
	CD4+ (cells/ $\mu$ L)	Omidubicel	10	323	684.5	1395
		UCBU	6	388	820.5	1300
	CD8+ (cells/ $\mu$ L)	Omidubicel	10	46	455.0	897
		UCBU	5	238	387.0	1096
	CD19+ (cells/ $\mu$ L)	Omidubicel	10	0	891.5	1763
		UCBU	5	36	1016.0	2509
	CD56+/16+ (cells/ $\mu$ L)	Omidubicel	9	76	313.0	491
		UCBU	5	190	276.0	839
Year 4 PT	CD3+ (cells/ $\mu$ L)	Omidubicel	8	17	1448.5	2761
		UCBU	3	981	1797.0	2033
	CD4+ (cells/ $\mu$ L)	Omidubicel	7	285	864.0	1753
		UCBU	3	680	760.0	889
	CD8+ (cells/ $\mu$ L)	Omidubicel	6	399	714.0	1039
		UCBU	3	252	972.0	1143
	CD19+ (cells/ $\mu$ L)	Omidubicel	7	585	739.0	3255
		UCBU	3	654	704.0	858
	CD56+/16+ (cells/ $\mu$ L)	Omidubicel	6	193	636.0	1177
		UCBU	3	228	286.0	840
Year 5 PT	CD3+ (cells/ $\mu$ L)	Omidubicel	6	444	1147.0	2114
		UCBU	2	169	720.5	1272
	CD4+ (cells/ $\mu$ L)	Omidubicel	6	26	594.0	1441
		UCBU	2	96	487.0	878

Visit	Marker	Treatment Received	N	Minimum	Median	Maximum
	CD8+ (cells/ $\mu$ L)	Omidubicel	6	45	464.5	607
		UCBU	2	71	211.0	351
	CD19+ (cells/ $\mu$ L)	Omidubicel	5	432	687.0	1096
		UCBU	2	49	361.5	674
	CD56+/16+ (cells/ $\mu$ L)	Omidubicel	4	132	190.5	429
		UCBU	2	178	214.0	250

Source: [Table 14.2.7.1](#)

N = Number of GP3 LTF patients with immune reconstitution data

Abbreviations: PT = post-transplantation; UCBU = unmanipulated cord blood unit

## 11.4.2. Statistical/Analytical Issues

### 11.4.2.1. Adjustment for Covariates

No adjustment for covariates was done.

### 11.4.2.2. Handling of Dropouts or Missing Data

No imputation was done for missing data.

### 11.4.2.3. Interim Analysis and Data Monitoring

No interim analysis was performed for the LTF sub-study. The independent Data Monitoring Committee only reviewed data during the main P0501 study.

### 11.4.2.4. Multicenter Studies

Site was not included as an adjustment factor in the analyses of the LTF sub-study.

### 11.4.2.5. Multiple Comparison/Multiplicity

No formal statistical adjustments for multiple comparisons were performed for the analyses of the LTF sub-study.

### 11.4.2.6. Use of an "Efficacy Subset" of Patients

Not applicable.

### 11.4.2.7. Active Control Studies Intended to Show Equivalence

Not applicable.

### 11.4.2.8. Examination of Subgroups

The cumulative incidence of cGvHD was examined separately for the GP3 patients for each degree of allele-level HLA match (from 2/8 to 8/8 and missing). There was no clear relationship between the degree of allele-level HLA match and the cumulative incidence of cGvHD in either the omidubicel group or the UCBU group (see [Table 14.3.4.4](#)).

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#### **11.4.3. Tabulation of Individual Response Data**

Individual patient efficacy listings are provided in [Listing 16.2.1.1](#) (vital status), [Listing 16.2.6.1](#) (chimerism results), [Listing 16.2.6.2](#) (disease progression/relapse during the GP3 main study), [Listing 16.2.6.3](#) (disease progression/relapse during the LTF sub-study), and [Listing 16.2.6.4](#) (immune reconstitution).

#### **11.4.4. Drug Dose, Drug Concentration, and Relationships to Response**

Refer to the main P0501 CSR for information regarding the cell doses (TNC counts and CD34+ cell counts and doses, and CD3+ cell counts and doses), administered to patients who received omidubicel and UCBU in the main P0501 study, as well as the relationship between transplanted cell dose and neutrophil engraftment. CD34+ cell dose was shown to correlate with engraftment in the patients with hematologic malignancies who received omidubicel in the main P0501 study ([Horwitz et al. 2021](#)).

#### **11.4.5. Drug-Drug and Drug-Disease Interactions**

Not applicable.

#### **11.4.6. By-Patient Displays**

By-patient displays are not provided. Listings of individual patient efficacy data are provided as indicated in Section [11.4.3](#).

#### **11.4.7. Efficacy Conclusions**

Patients with hematological malignancies for whom allogeneic stem cell therapy was a recommended and potentially life-saving treatment who had received either a single omidubicel unit or a single or double UCBU transplantation during the main P0501 study who completed the main study had the option to enroll in this optional observational LTF sub-study. Those who agreed to enroll in the sub-study were followed for selected efficacy outcomes for up to 5 years post-transplantation. The results indicate that omidubicel and UCBU engraftment remains stable and that both treatments exhibit a satisfactory efficacy profile.

The original randomization in the main P0501 study was associated with balanced patient characteristics, including known prognostic factors for transplant. This randomization was no longer valid for the LTF study, leading to imbalance in prognostic factors between the two treatment arms, introducing potential bias, and distorting the interpretation of any comparisons.

The LTF sub-study enrolled patients who were younger and a greater proportion of patients with low-risk and moderate-risk disease in the omidubicel and UCBU groups, respectively, when compared to the patients in the main P0501 study. The distribution of patients by race and by primary diagnosis was similar between the main study and the LTF sub-study. The LTF sub-study enrolled a higher proportion of patients in the omidubicel group (but not the UCBU group) with a 5-6/6 HLA match and a lower proportion of patients in both treatment groups with a 4/6 HLA match than the main study. While, in the omidubicel group, the HCT-specific comorbidity index was similar between the patients enrolled in the main study and the patients enrolled in the LTF sub-study, in the UCBU group, a lower proportion of patients with a score of 0 was and a higher proportion of patients with a score of 1-2 were enrolled in the LTF sub-study than in the main study.



Although descriptive comparisons were reported for omidubicel and UCB, the study was not powered to detect a difference in these endpoints. The analysis of OS and DFS in the LTF sub-study demonstrated similar results in the 2 study arms. Since all patients in the LTF entered after surviving at least 1 year post-transplantation without relapse, it is expected that their outcomes would be relatively favorable compared to an unselected patient population at main study entry.

Immune reconstitution analysis showed detectable levels of T, B, and NK cells by the last available time point, suggesting that omidubicel and UCBU both support long-term recovery of immune function in most patients.

The cumulative incidence of relapse/progression remained relatively low by Year 5 post-transplantation, indicating that omidubicel and UCBU are both able to contribute to the prevention of hematologic malignancy relapse. A similar trend was observed for the GP3 patients.

In summary, both omidubicel and UCBU demonstrated a stable engraftment pattern and a satisfactory efficacy profile up to at least 5 years post-transplantation. Both treatments provided long-term benefits in patients with hematologic malignancies for whom allogeneic stem cell therapy was a recommended and potentially life-saving treatment.

## **12. SAFETY EVALUATIONS**

As described in Section 9.2, this study was an observational study for LTF of patients who had received a transplant with omidubicel or UCBU in study P0501, up to 5 years post-transplantation. No AE (including SAE) reporting was required for this study. As described in Section 9.5.2, information on secondary graft failure, cGvHD, death, CBC, vital signs, and secondary malignancies was collected in this study.

### **12.1. Extent of Exposure**

Not applicable. Refer to the main CSR for extent of exposure during the main P0501 study.

### **12.2. Adverse Events**

#### **12.2.1. Brief Summary of Adverse Events**

Not applicable. Refer to the main CSR for AEs reported during the main P0501 study.

#### **12.2.2. Display of Adverse Events**

Not applicable. Refer to the main CSR for AEs reported during the main P0501 study.

#### **12.2.3. Analysis of Adverse Events**

Not applicable. Refer to the main CSR for AEs reported during the main P0501 study.

#### **12.2.4. Listing of Adverse Events by Patient**

Not applicable. Refer to the main CSR for AEs reported during the main P0501 study.

### **12.3. Deaths, Other Serious Adverse Events, and Other Significant Adverse Events**

#### **12.3.1. Listing of Deaths, Other Serious Adverse Events, and Other Significant Adverse Events**

Refer to the main CSR for deaths, other SAEs, and other significant AEs reported during the main P0501 study.

##### **12.3.1.1. Deaths**

Primary and secondary causes of death are listed by patient in Table 17. The patient's individual vital status is provided in Listing 16.2.1.1.

As shown in Table 17, a total of 11 patients died during the LTF sub-study (7 patients who had received omidubicel and 4 patients who had received UCBU).

**Table 17: Primary and Secondary Causes of Death (GP3 LTF Patients)**

Patient ID	Treatment Received	Primary Cause of Death	Secondary Causes of Death	Days Post-transplantation	Last Status Summary Form Entered
<a href="#">GP3CCF-006<sup>a</sup></a>	Omidubicel	Infection, viral	None	500	Year 2
<a href="#">GP3DFC-001<sup>a</sup></a>	Omidubicel	Infection, viral	None	677	Year 2
<a href="#">GP3DUP-001<sup>b</sup></a>	Omidubicel	Disease relapse/progression/persistence	None	1166	Year 3
<a href="#">GP3HSP-001<sup>a</sup></a>	Omidubicel	Multi organ system failure: TMA pulmonary, kidney failure, cardiac arrhythmia	Other: Acute myeloid leukemia in second relapse	831	Year 2
<a href="#">GP3LOY-003<sup>a</sup></a>	Omidubicel	Other: Post-transplant lymphoproliferative disorder-PTLD	Multi organ system failure: respiratory; liver; renal Infection, bacterial	603	Year 2
<a href="#">GP3LOY-007<sup>a</sup></a>	Omidubicel	Disease relapse/progression/persistence	Infection, multiple: bacterial, viral	660	Year 2
<a href="#">GP3UMN-005<sup>a</sup></a>	Omidubicel	Disease relapse/progression/persistence	None	601	Year 2
<a href="#">GP3DFC-004</a>	UCBU	Accidental death/homicide	None	1707	Year 5
<a href="#">GP3LOY-004</a>	UCBU	Other: septic shock	Disease relapse/progression/persistence	1206	Year 4
<a href="#">GP3PMC-001<sup>a</sup></a>	UCBU	Disease relapse/progression/persistence	None	855	Year 2
<a href="#">GP3UTR-002<sup>a</sup></a>	UCBU	Infection, fungal	None	1057	Year 3

Source: [Listing 16.2.1.1](#)

<sup>a</sup> Already reported in the [main CSR section 12.2.5.1](#); patient narrative available in the [main CSR Section 14.3.1](#)

<sup>b</sup> Mistakenly not listed in [the main CSR section 12.2.5.1](#), but patient narrative was accurately updated and available in the [main CSR Section 14.3.1](#)

Abbreviations: ID = identifier; PTLD = post-transplant lymphoproliferative disorder; TMA = thrombotic microangiopathy; UCBU = unmanipulated cord blood unit

#### **12.3.1.2. Other Serious Adverse Events**

Refer to the main CSR for SAEs reported during the main P0501 study. SAEs were not collected during the LTF sub-study.

#### **12.3.1.3. Other Significant Adverse Events**

No other significant AEs were reported during the main P0501 study (refer to the main CSR).

Six patients (4 who had received omidubicel and 2 who had received UCBU) were diagnosed with new malignancies, one of which (in a patient who had received UCBU) was of donor origin. Further details are provided in [Section 12.5.4](#).

#### **12.3.2. Narratives of Deaths, Other Serious Adverse Events, and Certain Other Significant Adverse Events**

Refer to the main CSR for narratives of deaths, other SAEs, and certain other significant AEs reported during the main P0501 study.

Narratives of deaths and secondary malignancies reported during the LTF sub-study and not included in the main P0501 CSR narratives are provided in [Section 1.1.1](#).

#### **12.3.3. Analysis and Discussion of Deaths, Other Serious Adverse Events, and Other Significant Adverse Events**

Eleven deaths were reported by Year 5 post-transplantation in this LTF sub-study.

Seven patients who had received omidubicel died. Disease relapse (either noted as disease relapse/progression/persistence or AML in second relapse) was a contributing factor (primary or secondary cause) to the deaths of 4 of these patients, who had primary diagnoses of MDS in the intermediate-2 stage, AML in first complete morphologic remission, AML in second remission, and ALL in second complete morphologic remission, respectively (see [Listing 16.2.4.1](#)). Infections, which are expected complications in transplanted patients, were a contributing factor to the deaths of 3 of these patients. One patient's primary cause of death was post-transplant lymphoproliferative disorder (PTLD), which is a known severe complication of transplantation, and occurs in up to 11% of HSCT with mismatched unrelated donor sources ([Compagno et al. 2020](#)). The relationship of these deaths to omidubicel was not evaluated, as no SAEs were to be reported during the LTF sub-study. The deaths of these patients were reported in the main P0501 CSR and more details can be found in that report.

Four patients who had received UCBU died. Disease relapse (noted as disease relapse/progression/persistence) was a contributing factor to the deaths of 2 of these patients, who had primary diagnoses of T-cell non-Hodgkin lymphoma in first partial remission and AML in second remission, respectively (see [Listing 16.2.4.1](#)). One patient's primary cause of death was infection and 1 patient's was septic shock, which were expected complications in this patient population. The other death reported in the UCBU group was an accidental death unrelated to post-transplantation complications. The relationship of these deaths to UCBU was not evaluated, as no SAEs were to be reported during the LTF sub-study. The deaths of 2 of these patients ([Patients GP3PMC-001](#) and [GP3UTR-002](#)) were reported in the main P0501 CSR and more details can be found in that report.

## 12.4. Clinical Laboratory Evaluation

Refer to the main CSR for the results of clinical laboratory evaluations during the main P0501 study.

### 12.4.1. Listings of Individual Laboratory Measurements by Patient and Each Abnormal Laboratory Value

Individual CBC measurements are provided in [Listing 16.2.8.1](#); measurements are provided for RBCs, hematocrit, Hb, WBCs, and platelet counts. Individual WBC differential measurements are provided in [Listing 16.2.8.2](#); measurements are provided for percentages of bands, segments, neutrophils, lymphocytes, monocytes, eosinophils, basophils, blasts, variant/atypical lymphocytes, other (not blasts), and other. Laboratory measurements were performed according to visits for Year 2, 3, 4, and 5 post-transplantation.

### 12.4.2. Evaluation of Each Laboratory Parameter

#### 12.4.2.1. Laboratory Values Over Time

CBC values over time are summarized by treatment group and by year for the GP3 LTF patients in [Table 18](#).

There was no notable trend over time for RBCs, hematocrit, Hb, or WBCs in either treatment group ([Table 18](#)).

Median platelet counts tended to increase over time in both treatment groups, going from  $203.0 \times 10^9/L$  (range:  $88 - 409 \times 10^9/L$ ) in the omidubicel group and  $182.5 \times 10^9/L$  (range:  $25 - 615 \times 10^9/L$ ) in the UCBU group at Year 2 to  $233.0 \times 10^9/L$  (range:  $193 - 387 \times 10^9/L$ ) and  $226.5 \times 10^9/L$  (range:  $192 - 316 \times 10^9/L$ ), respectively, at Year 5 ([Table 18](#)). However, median platelet counts decreased slightly in the patients who received omidubicel between Year 4 ( $238.0 \times 10^9/L$  [range:  $146 - 444 \times 10^9/L$ ]) and Year 5 ( $233.0 \times 10^9/L$  [range:  $193 - 387 \times 10^9/L$ ]).

**Table 18: CBC Results (GP3 LTF Patients)**

Visit	CBC	Treatment Received	N	Minimum	Median	Maximum
Year 2	RBCs ( $10^{12}/L$ )	Omidubicel	26	3.08	4.220	5.03
		UCBU	26	2.46	4.355	5.97
	Hematocrit (%)	Omidubicel	27	31.7	39.30	49.2
		UCBU	26	23.7	39.95	47.4
	Hemoglobin (g/dL)	Omidubicel	28	9.8	13.25	16.5
		UCBU	26	7.9	13.05	15.4
	WBCs ( $10^9/L$ )	Omidubicel	28	3.74	7.590	18.20
		UCBU	26	0.50	7.230	13.90
	Platelet Count ( $10^9/L$ )	Omidubicel	28	88	203.0	409
		UCBU	26	25	182.5	615

Visit	CBC	Treatment Received	N	Minimum	Median	Maximum
Year 3	RBCs ( $10^{12}/L$ )	Omidubicel	25	2.63	4.230	5.18
		UCBU	21	2.97	4.570	5.81
	Hematocrit (%)	Omidubicel	27	24.2	40.20	89.0
		UCBU	21	25.9	42.20	48.3
	Hemoglobin (g/dL)	Omidubicel	27	8.0	13.20	16.5
		UCBU	21	8.8	13.70	16.2
	WBCs ( $10^9/L$ )	Omidubicel	27	2.99	7.540	15.98
		UCBU	21	3.00	7.710	12.50
	Platelet Count ( $10^9/L$ )	Omidubicel	27	16	236.0	438
		UCBU	21	56	190.0	320
Year 4	RBCs ( $10^{12}/L$ )	Omidubicel	21	3.56	4.300	5.11
		UCBU	22	3.44	4.650	5.59
	Hematocrit (%)	Omidubicel	21	34.0	39.50	48.3
		UCBU	22	29.1	41.65	48.3
	Hemoglobin (g/dL)	Omidubicel	21	10.3	13.10	16.2
		UCBU	22	9.7	13.95	16.2
	WBCs ( $10^9/L$ )	Omidubicel	21	4.50	7.600	22.30
		UCBU	22	3.90	7.960	12.70
	Platelet Count ( $10^9/L$ )	Omidubicel	21	146	238.0	444
		UCBU	22	120	205.5	340
Year 5	RBCs ( $10^{12}/L$ )	Omidubicel	16	3.34	4.310	5.27
		UCBU	18	3.35	4.675	5.91
	Hematocrit (%)	Omidubicel	17	32.8	40.00	45.1
		UCBU	18	30.0	41.65	47.6
	Hemoglobin (g/dL)	Omidubicel	17	10.4	13.40	15.2
		UCBU	18	10.3	13.95	15.9
	WBCs ( $10^9/L$ )	Omidubicel	17	3.60	7.910	20.60
		UCBU	18	4.02	7.335	14.30
	Platelet Count ( $10^9/L$ )	Omidubicel	17	193	233.0	387
		UCBU	18	192	226.5	316

Source: [Table 14.3.5.1](#)

N = Number of patients with CBC data

Abbreviations: CBC = complete blood count; RBC = red blood cell; UCBU = unmanipulated cord blood unit; WBC = white blood cell

#### **12.4.2.2. Individual Patient Changes**

Overall, individual RBC, hematocrit, Hb, WBC, and platelet count values tended to increase over time post-transplantation (see [Listing 16.2.8.1](#)). Generally, values at transplantation were low and eventually recovered to normal or near normal values post-transplantation.

Sporadic high WBC values were observed in some of the patients post-transplantation but generally recovered to normal or near normal values over time ([Listing 16.2.8.1](#)).

The percentages of different cell types in the WBC differential tended to fluctuate over time but eventually stabilized post-transplantation for most patients (see [Listing 16.2.8.2](#)).

#### **12.4.2.3. Individual Clinically Significant Abnormalities**

Not applicable as laboratory AEs were not reported during the LTF sub-study.

### **12.5. Vital Signs, Physical Findings, and Other Observations Related to Safety**

Refer to the main CSR for vital signs measurements, physical findings, and other observations related to safety during the main P0501 study.

#### **12.5.1. Vital Signs**

Vital signs measurements are summarized by treatment group and by year in [Table 14.3.5.2](#). Individual patient vital signs data are listed in [Listing 16.2.9.1](#).

Vital signs measurements included weight, temperature, SBP, DBP, pulse, RR, and SpO<sub>2</sub>.

Overall, median weight increased over time in both groups, going from 75.1 kg (range: 45.8 – 129.0 kg) in the omidubicel group and 74.7 kg (range: 47.9 – 112.2 kg) in the UCBU group at Year 2 to 79.4 kg (range: 48.0 – 131.0 kg) and 79.6 kg (range: 51.1 – 113.3 kg), respectively, at Year 5 ([Table 14.3.5.2](#)).

There was no notable trend in median temperature, SBP, DBP, pulse, RR, and SpO<sub>2</sub> values over time in either treatment group ([Table 14.3.5.2](#)).

#### **12.5.2. Secondary Graft Failure**

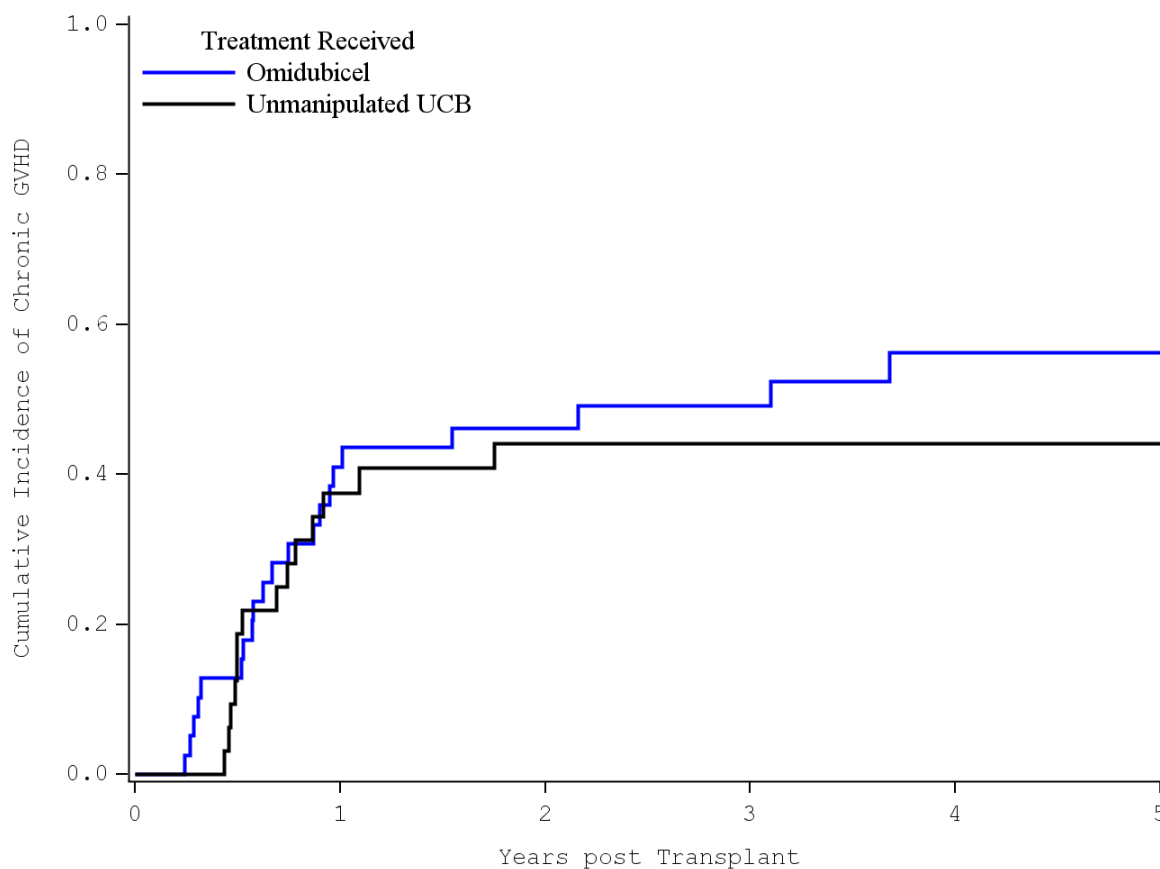
During the LTF, no patient experienced a secondary graft failure ([Table 14.3.3.1](#) and [Figure 14.3.5.1](#)).

#### **12.5.3. Chronic Graft-versus-host Disease**

During the LTF, 4 patients who received omidubicel and 2 patients who received an UCBU reported a new event of cGvHD.

The cumulative number of GP3 LTF patients with cGvHD, excluding those with competing risks (death, failure to achieve neutrophil engraftment, secondary graft failure, second transplant, and relapse) and the cumulative incidence of cGvHD are summarized by treatment group and by year in [Table 14.3.4.1](#), and the cumulative incidence of cGvHD in the GP3 LTF patients is displayed in [Figure 13](#). The maximum severity of cGvHD in the GP3 LTF patients who had visits from Year 2 to Year 5 is summarized by treatment and by year in [Table 19](#). The cGvHD status of the GP3 LTF patients is listed in [Listing 16.2.9.3](#).

**Figure 13: Cumulative Incidence of cGvHD (GP3 LTF Patients)**



Source: [Figure 14.3.4.1](#)

Note: Data from the GP3 study and the GP3 LTF sub-study are included.

Transplant was Day 0.

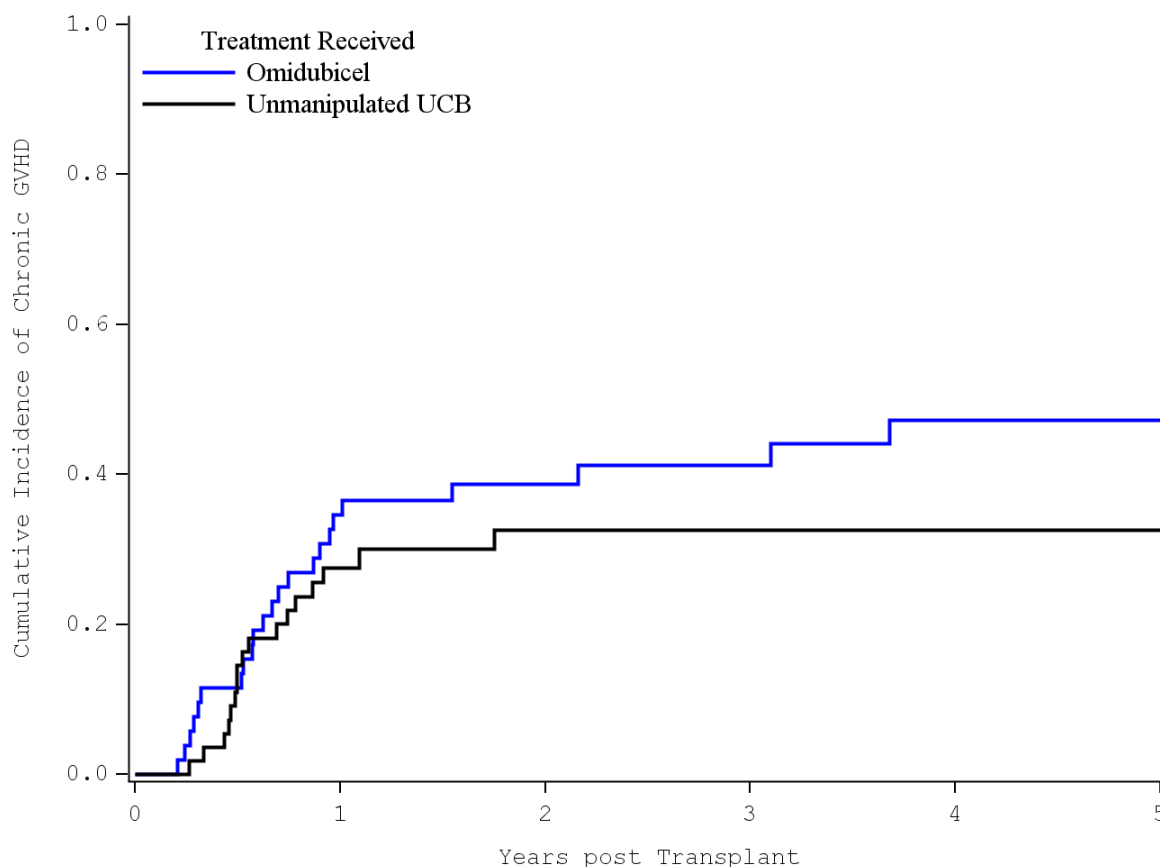
Death, failure to achieve neutrophil engraftment, secondary graft failure, second transplant, and relapse were competing risks.

Abbreviation: UCB = umbilical cord blood

The cumulative incidence curves for cGvHD in the LTF patients ([Figure 13](#)) were similar to those in the GP3 and GP3 LTF population, incorporating cGvHD data from all patients in the main study ([Figure 14](#)). The cumulative incidence of cGvHD for the GP3 and GP3 LTF population was 0.47 and 0.33 in the omidubicel and UCBU groups, respectively ([Table 14.3.4.2](#)), compared to 0.56 and 0.44, respectively, for the GP3 LTF patients ([Table 14.3.4.1](#)).



**Figure 14: Cumulative Incidence of cGvHD (GP3 and GP3 LTF Patients)**



Source: [Figure 14.3.4.2](#)

Note: Data from the GP3 study and the GP3 LTF sub-study are included.

Transplant was Day 0.

Death, failure to achieve neutrophil engraftment, secondary graft failure, second transplant, and relapse were competing risks.

Abbreviation: UCB = umbilical cord blood

As shown in [Table 19](#), most of the patients (12 [30.8%]) who had cGvHD reported in the omidubicel group had mild cGvHD and 1 (2.6%) had severe cGvHD. Of the patients who had cGvHD reported in the UCBU group, an equal number had mild and moderate cGvHD (5 [15.6%] patients each).

**Table 19: Maximum cGvHD Severity (GP3 LTF Patients)**

Maximum Severity Reported for Visits Y02-Y05	Treatment Received			
	Omidubicel (N=39)		UCBU (N=32)	
	N	%	N	%
Patients with visits Y02-Y05	39	100.0	32	100.0
No chronic GvHD	17	43.6	16	50.0
Maximum severity of mild	12	30.8	5	15.6
Maximum severity of moderate	0	0.0	5	15.6

Maximum Severity Reported for Visits Y02-Y05	Treatment Received			
	Omidubicel (N=39)		UCBU (N=32)	
	N	%	N	%
Maximum severity of severe	1	2.6	0	0.0
No chronic GvHD evaluation	9	23.1	6	18.8

Source: [Table 14.3.4.3](#)

N = Number of patients who received the treatment

Abbreviations: GvHD = graft-versus-host disease; UCBU = unmanipulated cord blood unit

#### 12.5.4. New Malignancies

The post-transplantation malignancy status of the GP3 LTF patients is listed in [Listing 16.2.9.4](#).

Six of the GP3 LTF patients were diagnosed with new malignancies:

- 4 patients who had received omidubicel:
  - [Patient GP3DFC-009](#) was diagnosed with Epstein-Barr virus (EBV)-positive Hodgkins lymphoma. It was not assessed whether this new malignancy was donor-derived. This patient was alive as of Day 1834 post-transplantation (see [Listing 16.2.1.1](#)).
  - [Patient GP3LOY-003](#) was diagnosed with PTLT (refer to the [main CSR section 12.2.3.15](#))
  - [Patient GP3OHS-001](#) was diagnosed with non-small cell lung cancer. It was not assessed whether this new malignancy was donor-derived. This patient was alive as of Day 1826 post-transplantation (see [Listing 16.2.1.1](#)).
  - [Patient GP3UMN-001](#) was diagnosed with monomorphic PTLT and EBV-positive diffuse large B cell lymphoma (refer to the [main CSR section 12.2.3.15](#)).
- 2 patients who had received UCBU:
  - [Patient GP3DUK-012](#) was diagnosed with high-grade squamous intraepithelial lesion/squamous cell carcinoma *in situ*, focally transected at the base of the penile shaft. It was not assessed whether this new malignancy was donor-derived. This patient was still alive as of 1715 days post-transplantation (see [Listing 16.2.1.1](#)).
  - [Patient GP3UTR-002](#) was diagnosed with suspected leukemia but without "normal" relapse but switch to AML (refer to the [main CSR section 12.2.3.15](#)).

#### 12.6. Safety Conclusions

The results of this LTF sub-study suggested that both omidubicel and UCBU continued to be safe and well-tolerated up to 5 years post-transplantation in the population of patients with hematologic malignancies who enrolled in the sub-study after receiving omidubicel or UCBU and completing the main P0501 study.

The absence of secondary graft failure in the patients who received omidubicel or UCBU from Year 2 to Year 5 post-transplantation is an encouraging finding demonstrating the stability of grafts from both cell sources.

The cumulative incidence of cGvHD reached 0.56 in the GP3 LTF patients who had received omidubicel and 0.44 in the patients who had received UCBU. However, almost all cases of cGvHD reported in the patients who had received omidubicel were mild in severity, and the cases of cGvHD reported in the patients who had received UCBU were evenly distributed between mild and moderate severity. Only 1 patient, in the omidubicel group, had severe cGvHD over the 5 years post-transplantation.

Secondary malignancies were infrequent in both treatment groups, and only 1 patient, in the UCBU group, had a secondary malignancy that was considered donor-derived.

Eleven (11) deaths, including 7 patients who had received omidubicel and 4 patients who had received UCBU, were reported during the LTF sub-study. Of these instances, 6 deaths (4 in the omidubicel group and 2 in the UCBU group) were associated with disease relapse, progression, or persistence as the primary or secondary cause of death, including 1 death in the omidubicel group that had AML in second relapse as the secondary cause of death, and 1 death in the omidubicel group had a primary cause of PTLT.

Only limited safety data were collected in the LTF sub-study; no AE reporting was required other than cGvHD, graft failure, relapse, new malignancies, and death. Additional safety surveillance included once yearly monitoring of vital signs and CBC results. The relatively small sample size (39 patients who had received omidubicel and 32 patients who had received UCBU) and the 5-year follow-up period may not have been sufficient to establish the incidence of rare, long-term AEs. Moreover, the patients in this LTF sub-study were only evaluated once annually. Despite these limitations, the data from this sub-study contributed to the understanding of the long-term safety of omidubicel and its safety profile in comparison with standard UCBU.

In summary, within the limitations of this sub-study, omidubicel appears to have a satisfactory safety profile with no substantial differences from UCBU for at least up to 5 years post-transplantation.

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## **13. DISCUSSION AND OVERALL CONCLUSIONS**

### **13.1. Discussion**

Patients enrolled in the LTF sub-study were those who had consented to 5-year follow-up after the main study and survived at least 1 year post-transplantation. On average, patients in the LTF sub-study were younger and had a higher degree of HLA matching than the starting patient population of the main study. As such, patients in both study arms who entered the LTF sub-study were selected for positive outcomes following transplant. This inherent selection undermined the integrity of the original randomization in the main study, limiting the interpretation of any comparisons between the study arms. Results of the LTF sub-study showed no new or unexpected toxicities in Years 2-5 following transplant. While a third of patients overall had chronic GvHD, most cases were mild. The study demonstrated durable long-term hematopoiesis, with no secondary graft failure in either arm during the LTF period, as well as long-term durable immune reconstitution in both arms, with acceptable levels of T, B, and NK cells. While the LTF study was not powered to detect a difference between the two treatment arms, OS was similar in the 2 arms in the LTF population.

### **13.2. Conclusions**

The LTF sub-study demonstrated that omidubicel provided sustained hematopoiesis over a 5-year post-transplantation period. While patients on the control UCBU arm in the main study had an increased risk of primary graft failure and infection, those who survived the post-transplantation period and went on to the LTF sub-study had similar outcomes over 5 years to those treated with omidubicel.

## 14. TABLES AND FIGURES REFERRED TO BUT NOT INCLUDED IN THE TEXT

### 14.1. Disposition and Demographic Data

Table/Figure Number	Title
Figure 14.1.1	CONSORT Diagram (GP3 and GP3 LTF Patients)
Table 14.1.1	Summary of Patient Follow-up (GP3 and GP3 LTF Patients)
Table 14.1.2	Categorical Demographics and Baseline Data for Patients Enrolled on GP3 LTF (GP3 LTF Patients)
Table 14.1.3	Continuous Demographics and Baseline Data for Patients Enrolled on GP3 LTF (GP3 LTF Patients)

### 14.2. Efficacy Data

#### 14.2.1. Peripheral Blood/Bone Marrow Chimerism

Table/Figure Number	Title
Figure 14.2.1.1	Kaplan-Meier of Peripheral Blood/Bone Marrow Chimerism <95% After Day 42 (GP3 LTF Patients)
Figure 14.2.1.2	Kaplan-Meier of Peripheral Blood/Bone Marrow Chimerism <95% After Day 42 (GP3 and GP3 LTF Patients)
Table 14.2.1.1	Kaplan-Meier of Peripheral Blood/Bone Marrow Chimerism <95% After Day 42 (GP3 LTF Patients)
Table 14.2.1.2	Kaplan-Meier of Peripheral Blood/Bone Marrow Chimerism <95% After Day 42 (GP3 and GP3 LTF Patients)

#### 14.2.2. Overall Survival

Table/Figure Number	Title
Figure 14.2.2.1	Kaplan-Meier of Overall Survival (GP3 LTF Patients)
Figure 14.2.2.2	Kaplan-Meier of Overall Survival (GP3 and GP3 LTF Patients)
Table 14.2.2.1	Overall Survival (GP3 LTF Patients)
Table 14.2.2.2	Overall Survival (GP3 and GP3 LTF Patients)

#### 14.2.3. Disease Progression/Relapse

Table/Figure Number	Title
Figure 14.2.3.1	Cumulative Incidence of Progression/Relapse (GP3 LTF Patients)
Figure 14.2.3.2	Cumulative Incidence of Progression/Relapse (GP3 and GP3 LTF Patients)

Table/Figure Number	Title
<a href="#">Table 14.2.3.1</a>	Cumulative Incidence of Progression/Relapse (GP3 LTF Patients)
<a href="#">Table 14.2.3.2</a>	Cumulative Incidence of Progression/Relapse (GP3 and GP3 LTF Patients)
<b>14.2.4. Disease-free Survival</b>	
Table/Figure Number	Title
<a href="#">Figure 14.2.4.1</a>	Kaplan-Meier of Disease-free Survival (GP3 LTF Patients)
<a href="#">Figure 14.2.4.2</a>	Kaplan-Meier of Disease-free Survival (GP3 and GP3 LTF Patients)
<a href="#">Table 14.2.4.1</a>	Disease-free Survival (GP3 LTF Patients)
<a href="#">Table 14.2.4.2</a>	Disease-free Survival (GP3 and GP3 LTF Patients)
<b>14.2.5. GvHD-free, Relapse-free Survival</b>	
Table/Figure Number	Title
<a href="#">Figure 14.2.5.1</a>	Kaplan-Meier of GvHD-free Relapse-free Survival (GP3 LTF Patients)
<a href="#">Figure 14.2.5.2</a>	Kaplan-Meier of GvHD-free Relapse-free Survival (GP3 and GP3 LTF Patients)
<a href="#">Table 14.2.5.1</a>	GvHD-free Relapse-free Survival (GP3 LTF Patients)
<a href="#">Table 14.2.5.2</a>	GvHD-free Relapse-free Survival (GP3 and GP3 LTF Patients)
<b>14.2.6. cGvHD-free, Relapse-free Survival</b>	
Table/Figure Number	Title
<a href="#">Figure 14.2.6.1</a>	Kaplan-Meier of Chronic GvHD-free Relapse-free Survival (GP3 LTF Patients)
<a href="#">Figure 14.2.6.2</a>	Kaplan-Meier of Chronic GvHD-free Relapse-free Survival (GP3 and GP3 LTF Patients)
<a href="#">Table 14.2.6.1</a>	Chronic GvHD-free Relapse-free Survival (GP3 Patients)
<a href="#">Table 14.2.6.2</a>	Chronic GvHD-free Relapse-free Survival (GP3 and GP3 LTF Patients)
<b>14.2.7. Immune Reconstitution</b>	
Table/Figure Number	Title
<a href="#">Table 14.2.7.1</a>	Immune Reconstitution (GP3 LTF Patients)

## 14.3. Safety Data

### 14.3.1. Adverse Events

Not applicable. Refer to the main P0501 CSR for AEs reported during the main study.

### 14.3.2. Deaths

See [Listing 16.2.6.1](#) for individual patients' vital status during the LTF sub-study.

### 14.3.3. Secondary Graft Failure

Table/Figure Number	Title
<a href="#">Figure 14.3.3.1</a>	Cumulative Incidence of Secondary Graft Failure (GP3 LTF Patients)
<a href="#">Figure 14.3.3.2</a>	Cumulative Incidence of Secondary Graft Failure (GP3 and GP3 LTF Patients)
<a href="#">Table 14.3.3.1</a>	Cumulative Incidence of Secondary Graft Failure (GP3 LTF Patients)
<a href="#">Table 14.3.3.2</a>	Cumulative Incidence of Secondary Graft Failure (GP3 and GP3 LTF Patients)

### 14.3.4. Chronic GvHD

Table/Figure Number	Title
<a href="#">Figure 14.3.4.1</a>	Cumulative Incidence of Chronic GvHD (GP3 LTF Patients)
<a href="#">Figure 14.3.4.2</a>	Cumulative Incidence of Chronic GvHD (GP3 and GP3 LTF Patients)
<a href="#">Table 14.3.4.1</a>	Cumulative Incidence of Chronic GvHD (GP3 LTF Patients)
<a href="#">Table 14.3.4.2</a>	Cumulative Incidence of Chronic GvHD (GP3 and GP3 LTF Patients)
<a href="#">Table 14.3.4.3</a>	Maximum Chronic GvHD Severity (GP3 LTF Patients)
<a href="#">Table 14.3.4.4</a>	Chronic GvHD by Subgroup (GP3 and GP3 LTF Patients)

### 14.3.5. Vital Signs and Laboratory Values

Table/Figure Number	Title
<a href="#">Table 14.3.5.1</a>	CBC Results (GP3 LTF Patients)
<a href="#">Table 14.3.5.2</a>	Summary of Vital Signs (GP3 LTF Patients)

#### 14.3.6. Narratives for Deaths, Other Serious Adverse Events, and Other Significant Adverse Events

<b>Patient identifier</b>	GP3DFC-004
<b>Age</b>	45
<b>Sex</b>	Female
<b>Baseline weight (kg)</b>	54.5
<b>Race</b>	White
<b>Study therapy</b>	UCBU
<b>Date of study therapy administration</b>	29-Jun-2018
<b>Event</b>	Hemorrhagic Cystitis
<b>Severity</b>	Grade 3
<b>Serious (yes/no)</b>	Yes
<b>Start/stop date of Event</b>	29-Aug-2018 – 04-Sep-2018
<b>Outcome of event</b>	Resolved
<b>Relationship to the study drug</b>	No
<b>Date of death (if applicable)</b>	<b>02-Mar-2023</b>
<p><b>Narrative:</b></p> <p>Patient GP3DFC-004 is a 45 year-old White, Hispanic or Latino female with ALL who received an UCBU transplant on 29-Jun-2018.</p> <p>The patient was diagnosed with ALL on 09-Mar-2016. She underwent induction therapy with 6 cycles of Cancer and Leukemia Group B (CALGB) (Mar-2016), maintenance therapy with purinethol, Oncovin®, methotrexate, and prednisone (POMP) (Feb-2017), and reinduction therapy with Hyper cyclophosphamide, vincristine sulfate, doxorubicin hydrochloride (Adriamycin), and dexamethasone (CVAD)-B cycle (22-Jan-2018 and 01-Mar-2018). The patient's past medical history included moderate pulmonary impairment at screening (diffusing capacity of the lungs for carbon monoxide [DLCO] 73% of predicted). Surgical history included Essure tubal ligation (2012), back surgery for lumbar spine herniated disk (2008), and lumbar discectomy of L5S1 (2008).</p> <p>Prior to UCBU transplant, the patient was treated with a myeloablative conditioning regimen consisting of total body irradiation (TBI) (25-Jun-2018 to 28-Jun-2018), fludarabine (22-Jun-2018 to 24-Jun-2018), and cyclophosphamide (22-Jun-2018 to 23-Jun-2018). GvHD prophylaxis included mycophenolate mofetil (MMF) and tacrolimus. Infection prophylaxis included acyclovir, trimethoprim-sulfamethoxazole, and levofloxacin. Neutrophil counts recovered at 14 days post-transplantation (13-Jul-2018). The patient was discharged from the hospital on 13-Aug-2018.</p> <p>The patient was admitted on 29-Aug-2018 for recurrent and worsening hemorrhagic cystitis with low blood pressure (BP), 5-point hematocrit drop, and dizziness. The hemorrhagic cystitis was secondary to BK virus. Symptoms were controlled with platelet and packed red blood cell (PRBC) transfusions. On 01-Sep-2018, the patient reported an improvement in</p>	



clots. On 02-Sep-2018 she received a large volume of intravenous (IV) fluid. The BK virus was found to be down trending. On 04-Sep-2018, the patient's symptoms improved, and *per os* (PO; by mouth) intake was sufficient for discharge.

This patient died on 02-Mar-2023 (Day +1707) due to an accidental death (drowning).

Abbreviations: ALL: = acute lymphoblastic leukemia; BP = blood pressure; CALGB = Cancer and Leukemia Group B; CVAD = cyclophosphamide, vincristine sulfate, doxorubicin hydrochloride (Adriamycin), and dexamethasone; DLCO = diffusing capacity of the lungs for carbon monoxide; GvHD = graft-versus-host disease; IV = intravenous; MMF = mycophenolate mofetil; PO = *per os* (by mouth); POMP = purinethol, Oncovin®, methotrexate, and prednisone; PRBC = packed red blood cell; TBI = total body irradiation; UCBU = unmanipulated cord blood unit

<b>Patient identifier</b>	GP3DFC-009
<b>Age</b>	57
<b>Sex</b>	Male
<b>Baseline weight (kg)</b>	81.1
<b>Race</b>	White – North American
<b>Study therapy</b>	Omidubicel
<b>Date of study therapy administration</b>	05-Jul-2019
<b>Event</b>	1. Acute Kidney Injury 2. Diarrhea
<b>Severity</b>	1. Grade 2 2. Grade 3
<b>Serious (yes/no)</b>	1. Yes 2. Yes
<b>Start/stop date of Event</b>	1. 22-Jul-2019 – 29-Jul-2019 2. 18-Jan-2020 – 08-Feb-2020
<b>Outcome of event</b>	1. Resolved 2. Resolved
<b>Relationship to the study drug</b>	1. No 2. No
<b>Date of death (if applicable)</b>	
<p><b>Narrative:</b></p> <p>GP3DFC-009 is a 57 year-old White male with AML who received omidubicel on 05-Jul-2019.</p> <p>The patient was diagnosed with AML on 27-Dec-2018. He underwent treatment with 1 cycle of induction therapy with 7+3 (cytarabine and daunorubicin; 03-Jan-2019) and 3 cycles of consolidation therapy with high-dose cytarabine (HiDAC) (14-Feb-2019). The patient's medical history included moderate/severe pulmonary impairment at study screening. He was a former smoker (2 packs per day x 10 years) and quit in Feb-2009.</p> <p>Prior to omidubicel transplant, the patient was treated with a myeloablative conditioning regimen consisting of fludarabine (30-Jun-2019 to 02-Jul-2019), thiotepe (28-Jun-2019 to 29-Jun-2019), and busulfan (30-Jun-2019 to 02-Jul-2019). GvHD prophylaxis included MMF and tacrolimus. Infection prophylaxis included acyclovir, trimethoprim-sulfamethoxazole, levofloxacin, and valacyclovir. Neutrophil counts recovered at 7 days post-transplantation (12-Jul-2019). The patient was discharged from the hospital on 17-Jul-2019.</p> <p>The patient was admitted on 22-Jul-2019 for acute kidney injury management. He had a creatinine of 2.06 in the setting of decreased PO intake and was admitted for IV fluid and close electrolyte monitoring. On 23-Jul-2019, the patient had a new rash which covered &lt;50% of his body surface area and diarrhea. He was started on prednisone for possible GvHD. The acute kidney injury was likely pre-renal (low fractional excretion of sodium [FENa]) and improved with IV fluid and aggressive lactated Ringer's (LR). Flexible</p>	

sigmoidoscopy done on 24-Jul-2019 showed normal morphology but gastrointestinal (GI) Grade 1 GvHD was found on pathology on 25-Jul-2019. Human herpesvirus 6 (HHV6) viral load was also found to be high (>100k) on 24-Jul-2019. There was no evidence of encephalitis clinically. All stool infectious studies were negative. On 27-Jul-2019, the patient was transfused for epistaxis. On 28-Jul-2019 the HHV6 viral load was 1500. The acute kidney injury improved but did not return to baseline and on 29-Jul-2019 the patient was discharged home.

The patient was then admitted for diarrhea on 18-Jan-2020 with initial concerns of worsening GvHD. However, the patient had no further diarrhea on admission, even after his diet was advanced. He was discharged on 20-Jan-2020 on a regular bone marrow transplant (BMT) diet and resumed his prior dose of 80 mg prednisone upon discharge. The diarrhea was considered likely a result of a food-borne illness. The patient then returned to the emergency department (ED) on 01-Feb-2020 with worsening diarrhea over the previous several days since discharge. He reported having bowel movements up to 12 times per day with associated abdominal pain. He reported the bouts of diarrhea occurred following any oral intake but that he had continued eating and drinking to avoid dehydration. He was admitted for further work-up and evaluation. A colonoscopy was performed on 03-Feb-2020 which revealed cytomegalovirus (CMV) colitis. The colitis and corresponding CMV viral load (max ~3500 copies/mL) responded to IV ganciclovir. The patient was discharged on oral Valcyte on 08-Feb-2020.

On 18-Apr-2024 (Day +1749), the patient was noted to have chest lymphadenopathy while in the Emergency Department for respiratory symptoms.

On 25-Apr-2024 (Day + 1756), he underwent a core biopsy of an 18F-fluorodeoxyglucose (FDG)-avid left cervical node. This showed classical Hodgkin lymphoma (new malignancy). The large atypical cells were positive for CD15, CD30, paired box 5 (PAX5), multiple myeloma oncogene 1 (MUM1), and fascin and negative for CD20, octamer-binding transcription factor-2 (Oct-2), B cell Oct-binding protein-1 (Bob-1), CD3, and CD45. The large atypical cells (and a few scattered background small lymphocytes) were positive for EBV by *in situ* hybridization for Epstein-Barr virus-encoded small ribonucleic acid (EBER). Nearly all (100%) of the large atypical cells showed membrane staining for programmed death-ligand 1 (PD-L1). It was not assessed whether this new malignancy was donor-derived.

On 17-May-2024, he started on brentuximab vedotin (BV) with sequential doxorubicin, vinblastine, and dacarbazine (AVD) with dexrazoxane added.

He received a second dose of BV on 07-Jun-2024, cycle (C)2 day (D)1: BV 1.8 mg/kg

17-20-Jun-2024: Admission for viral pneumonia (non-coronavirus disease [COVID] coronavirus +) and viral gastroenteritis. The patient was treated for community-acquired pneumonia (CAP) with 5 days of antibiotics with full recovery.

28-Jun-2024: positron emission tomography (PET) for restaging showed interval response of mediastinal nodes. He had a persistent abdominal node, which could be inflammatory.

28-Jun-2024: C3D1 AVD with Neulasta support.

The patient was alive at their last follow-up on 12-Jul-2024 (Day +1834).

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Abbreviations: AML = acute myelogenous leukemia; AVD = doxorubicin, vinblastine, and dacarbazine; BMT = bone marrow transplant; Bob-1 = B cell Oct-binding protein-1; BV = brentuximab vedotin; CAP = community-acquired pneumonia; CMV = cytomegalovirus; COVID = coronavirus disease; EBER = Epstein-Barr virus-encoded small ribonucleic acid; EBV = Epstein-Barr virus; ED = emergency department; FDG = 18F-fluorodeoxyglucose; FENa = fractional excretion of sodium; GI = gastrointestinal; HiDAC = high-dose cytarabine; HHV6 = human herpesvirus 6; IV = intravenous; LR = lactated Ringer's; MMF = mycophenolate mofetil; MUM1 = multiple myeloma oncogene 1; Oct-2 = octamer-binding transcription factor-2; PAX5 = paired box 5; PD-L1; programmed death-ligand 1; PET = positron emission tomography; PO = *per os* (by mouth)

<b>Patient identifier</b>	GP3DUK-012
<b>Age</b>	38
<b>Sex</b>	Male
<b>Baseline weight (kg)</b>	108.6
<b>Race</b>	Asian
<b>Study therapy</b>	UCBU
<b>Date of study therapy administration</b>	01-May-2019
<b>Event</b>	1. Hyperglycemia 2. Pneumonia 3. Bronchospasm
<b>Severity</b>	1. Grade 3 2. Grade 3 3. Grade 3
<b>Serious (yes/no)</b>	1. Yes 2. Yes 3. Yes
<b>Start/stop date of Event</b>	1. 04-Jun-2019 – 05-Jun-2019 2. 08-Jan-2020 – 13-Jan-2020 3. 03-Dec-2019 – 04-Dec-2019
<b>Outcome of event</b>	1. Resolved 2. Resolved 3. Resolved
<b>Relationship to the study drug</b>	1. No 2. No 3. No
<b>Date of death (if applicable)</b>	
<p><b>Narrative:</b></p> <p>Patient GP3DUK-012 is a 38 year-old Asian male with AML who received an UCBU transplant on 01-May-2019.</p> <p>The patient was diagnosed with AML on 10-Dec-2018. He underwent induction therapy with 7+3 (cytarabine and idarubicin; 21-Dec-2018) and salvage therapy with mitoxantrone, etoposide, and cytarabine (MEC; 09-Feb-2019). The patient's past medical history also included myelocytic sarcoma on the right chest wall, asthma, obesity (body mass index [BMI] = 36.3 kg/m<sup>2</sup>), eczema, gout, Graves' disease (treated with radioactive iodine in 2006), hypothyroidism (post-radioiodine [RDI]), hemorrhoids, and hypertension. He was treated for bacteremia due to vancomycin resistant <i>Enterococcus</i> in Jan-2019. He had moderate/severe pulmonary impairment at study screening.</p> <p>Prior to UCBU transplant, the patient was treated with a myeloablative conditioning regimen consisting of TBI (22-Apr-2019 to 26-Apr-2019), fludarabine (26-Apr-2019 to 29-Apr-2019), and thiotepea (20-Apr-2019 to 21-Apr-2019). GvHD prophylaxis included MMF and tacrolimus. The tacrolimus was switched to cyclosporine on visit Day +28. Infection</p>	

prophylaxis included acyclovir, ciprofloxacin, posaconazole, and trimethoprim-sulfamethoxazole. Neutrophil counts recovered at 19 days post-transplantation (20-May-2019). The patient was discharged from the hospital on 03-Jun-2019.

On 04-Jun-2019, the patient's caregiver reported that the patient had a blood glucose level of 583, with a re-check level of 586. The caregiver was instructed to give the patient 12 units of Lispro Insulin and re-check in one hour. The patient's blood glucose remained above 500 after 12 units of Lispro Insulin. The patient was instructed to come to the hospital and was admitted for observation, IV fluids, and monitoring of blood glucose. By midnight, the patient's blood glucose was down to 188 and was 92 by breakfast. The patient was counseled to limit concentrated sweets in his diet and was discharged on 05-Jun-2019. Given his concurrent steroid taper, no adjustments were made to the patient's insulin regimen.

The patient was then admitted on 03-Dec-2019 for observation after excisional lymph node biopsy by ear, nose, and throat (ENT) specialist. The patient began to have bronchospasm and needed oxygen support after the biopsy procedure. The patient was treated with albuterol nebs given his significant history of asthma which reduced his symptoms. By the time he had reached the autologous bone marrow transplant (ABMT) team he was stable on room air. On 04-Dec-2019, the patient was stable and discharged back to the ABMT clinic team.

On 08-Jan-2020 the patient was admitted for management of pneumonia. The patient had reported a worsening, dry cough with some white sputum over the prior few weeks and had recently developed pleuritic pain. He denied any recent sick contacts or other upper respiratory infection (URI) symptoms. He had been using albuterol and nebulizers at home with some temporary relief. A chest computed tomography (CT) found interval development of bilateral centrilobular nodules and peribronchial ground glass opacities, concerning for multifocal endobronchial infection, and a slight increase in a small pericardial effusion. He was admitted on 08-Jan-2020 for further evaluation of the abnormal chest CT.

The patient had a persistent, mostly dry cough on 09-Jan-2020. He also continued to endorse poor sleep due to the dry cough but reported some relief with increase in nebulizer treatments. On 10-Jan-2020 the patient underwent a bronchoscopy without complications. He continued to have a dry cough that improved with Duonebs and codeine. On 13-Jan-2020 the patient was feeling better despite a continuing irritating cough. Given clinical improvement with scheduled nebulizer treatments and ribavirin, the patient was discharged on 13-Jan-2020.

The patient reported a new malignancy on 09-Jan-2024 (Day +1714): high-grade squamous intraepithelial lesion/squamous cell carcinoma *in situ*, focally transected at base of penile shaft. It was not assessed whether this malignancy was donor-derived.

The *in situ* carcinoma was removed by Mohs surgical procedure on 22-Feb-2024 (Day +1758; last follow-up date for this patient).

Abbreviations: ABMT = autologous bone marrow transplant; AML = acute myelogenous leukemia; BMI = body mass index; CT = computed tomography; ENT = ears, nose, and throat; GvHD = graft-versus-host disease; IV = intravenous; MEC = mitoxantrone, etoposide, and cytarabine; MMF = mycophenolate mofetil; RDI = radioiodine; TBI = total body irradiation; UCBU = unmanipulated cord blood unit; URI = upper respiratory infection

<b>Patient identifier</b>	GP3LOY-004
<b>Age</b>	49
<b>Sex</b>	Female
<b>Baseline weight (kg)</b>	51.8
<b>Race</b>	White-Mediterranean
<b>Study therapy</b>	UCBU
<b>Date of study therapy administration</b>	11-Oct-2018
<b>Event</b>	No SAEs Reported
<b>Severity</b>	
<b>Serious (yes/no)</b>	
<b>Start/stop date of Event</b>	
<b>Outcome of event</b>	
<b>Relationship to the study drug</b>	
<b>Date of death (if applicable)</b>	29-Jan-2022
<p><b>Narrative:</b></p> <p>Patient GP3LOY-004 is a 49 year-old White-Mediterranean female with lymphoma who received an UCBU transplant on 11-Oct-2018.</p> <p>The patient was diagnosed with lymphoma on 17-Apr-2018. She underwent treatment with six cycles of etoposide, solumedrone, high-dose cytarabine, and cisplatin (ESHAP) chemotherapy (C1: 07-May-2018, C2: 29-May-2018, C3: 18-Jun-2018, C4: 09-Jul-2018, C5: Jul-2018, and C6: Aug-2018). The patient's medical history included moderate pulmonary impairment at study screening.</p> <p>Prior to UCBU transplant, the patient was treated with a myeloablative conditioning regimen consisting of fludarabine (06-Oct-2018 to 08-Oct-2018), thiotepe (04-Oct-2018 to 05-Oct-2018), and busulfan (06-Oct-2018 to 08-Oct-2018). GvHD prophylaxis included MMF and tacrolimus. Infection prophylaxis included levofloxacin, posaconazole, valacyclovir, and trimethoprim-sulfamethoxazole. Neutrophil counts recovered at 24 days post-transplantation (04-Nov-2018). The patient was discharged from the hospital on 03-Nov-2018.</p> <p>Minimal residual disease was detected in the BM following the transplant confirming disease relapse on 08-May-2020. Therapy was initiated on 30-May-2020 with lenalidomide. Therapy was held the first week of August 2020 due to pancytopenia. The patient received tazemetostat from 29-Dec-2020 through 22-Feb-2021. A BM exam performed on 24-Feb-2021 revealed some abnormal lymphocytes (45%) and blast cells (4%) consistent with involvement of the patient's known T-cell lymphoma. Two cycles of romidepsin (09-Mar-2021 and 06-Apr-2021) were administered, and a PET scan on 12-May-2021 showed a complete remission – no scintigraphic evidence of FDG-avid lymphoma. No further treatment has been administered. As of 25-Aug-2021, the patient was alive with no reports of any subsequent disease relapses.</p>	

On 30-Dec-2021 (Day +1176), the patient had a kidney biopsy that revealed hepatosplenic T-cell lymphoma. The patient began treatment on 19-Jan-2022 (C1D1) with romidepsin. The patient died from sepsis on 29-Jan-2022 (Day +1206); second cause of death was reported as disease relapse.

Abbreviations: BM = bone marrow; C = cycle; D = day; ESHAP = etoposide, solumedrone, high-dose cytarabine, and cisplatin; FDG = 18F-fluorodeoxyglucose; GvHD = graft-versus-host disease; MMF = mycophenolate mofetil; PET = positron emission tomography; SAE = serious adverse event; UCBU = unmanipulated cord blood unit



<b>Patient identifier</b>	GP3OHS-001
<b>Age</b>	58
<b>Sex</b>	Female
<b>Baseline weight (kg)</b>	50.3
<b>Race</b>	White
<b>Study therapy</b>	Omidubicel
<b>Date of study therapy administration</b>	26-Apr-2019
<b>Event</b>	1. GI GvHD 2. <i>Staphylococcus</i> (Staph) Bacteremia 3. Left Femoral Neck Fracture 4. Pulmonary Embolism 5. Dysphagia
<b>Severity</b>	1. Grade 3 2. Grade 3 3. Grade 3 4. Grade 3 5. Grade 3
<b>Serious (yes/no)</b>	1. Yes 2. Yes 3. Yes 4. Yes 5. Yes
<b>Start/stop date of Event</b>	1. 30-May-2019 – 17-Jun-2019 2. 23-Jul-2019 – 03-Sep-2019 3. 04-Oct-2019 – 15-Oct-2019 4. 17-Oct-2019 – 19-Oct-2019 5. 08-May-2020 – 16-May-2020
<b>Outcome of event</b>	1. Resolved 2. Resolved 3. Resolved with sequelae 4. Resolved with sequelae 5. Resolved
<b>Relationship to the study drug</b>	1. Yes 2. No 3. No 4. No 5. No
<b>Date of death (if applicable)</b>	
<b>Narrative:</b> Patient GP3OHS-001 is a 58 year-old White female with AML who received omidubicel on 26-Apr-2019.	

The patient was diagnosed with AML (AML without maturation - M1) on 19-Nov-2018. She underwent induction therapy with seven days of cytarabine (100 mg/m<sup>2</sup>) and three days of idarubicin (12 mg/m<sup>2</sup>) (23-Nov-2018 to 29-Nov-2018) and consolidation therapy with 2 cycles of HiDAC (C1: 03-Jan-2019 to 08-Jan-2019, C2: 31-Jan-2019 to 04-Feb-2019). The patient's past medical history included anxiety, panic disorder, deep vein thrombosis, gastroesophageal reflux disease, and psoriasis. She had moderate pulmonary impairment at study screening.

Prior to omidubice transplant, the patient was treated with a myeloablative conditioning regimen consisting of TBI 150 cGy/day (22-Apr-2019 to 25-Apr-2019), fludarabine 38 mg/day (19-Apr-2019 to 21-Apr-2019), and cyclophosphamide 3300 mg/day (19-Apr-2019 to 20-Apr-2019). GvHD prophylaxis included MMF and tacrolimus. Infection prophylaxis included trimethoprim-sulfamethoxazole, levofloxacin, valacyclovir, and posaconazole. Neutrophil counts recovered at 15 days post-transplantation (11-May-2019). The patient's post-transplantation hospitalization was complicated by pancytopenia and chemotherapy induced nausea, vomiting, and diarrhea. The patient was discharged from the hospital on 19-May-2019.

The patient presented to the clinic on 30-May-2019 for routine follow-up and was found to have nausea, weakness, decreased oral intake, and a recent fall when her 'legs gave out' in the bathroom. She also had some abdominal pain and persistent diarrhea. She had been taking ondansetron and prochlorperazine for the nausea, but it did not help. The patient had a few episodes of yellow/green emesis without blood and denied blood in her stool. She denied fevers, chills, chest pain, and dyspnea. She was admitted on 30-May-2019 to rule out GI GvHD.

The patient was found to have GI GvHD on 31-May-2019 by biopsy of the stomach and rectum. The findings were histologically low-grade. There was no viral cytopathic change and no active inflammation. The patient was treated with methylprednisone, budesonide, and beclomethasone. She received total parenteral nutrition and was advanced to a Grade 1 GvHD diet. She then showed no further indication of GvHD. The patient was discharged on 17-Jun-2019 at which point the GvHD symptoms had resolved.

The patient then presented to the ED on 23-Jul-2019 complaining of worsening generalized fatigue and weakness. On admission the patient's BP was 90/60 which improved to 111/70 after one liter of IV fluid. The patient was initially suspected to have a urinary tract infection (UTI) as a urinalysis showed 50-100 WBCs, positive nitrates, and 4+ bacteria. The patient was started on ceftriaxone (Rocephin) but it was discontinued after urine culture grew 50-99 thousand (K) *Escherichia coli* (*E. coli*) and a UTI was deemed unlikely. Blood culture on admission was found to be positive for oxacillin-resistant *Staphylococcus epidermidis*. The patient was started on vancomycin to be continued until 31-Jul-2019. Cardiac imaging found a small abnormality on mitral valve of unclear significance. The patient was discharged on 03-Sep-2019.

The patient was seen in clinic on 04-Oct-2019 and was in her usual health. On the same day she tripped while walking and fell. She had bruises and abrasions on her arms. She did not lose consciousness or have any seizures. She had acute leg pain. X-ray found an acute, minimally displaced, transcervical left femoral neck fracture. Orthopedics was consulted and the decision was to transfer her for surgery. Of note, the patient had recently had a dual-

energy X-ray absorptiometry (DEXA) scan on 06-Sep-2019, with T scores of -2.0 on lumbar spine and -2.8 on femoral neck and was about to start alendronate in addition to vitamin D/calcium.

The patient was admitted on 06-Oct-2019 for left hip fracture. She had non-neutropenic fevers in the morning of 06-Oct-2019 and UTI was suspected given positive screen. Cefepime for *E. coli* UTI was started on 07-Oct-2019. The patient underwent a left hip hemiarthroplasty procedure on 08-Oct-2019. The patient was discharged on 15-Oct-2019 to a skilled nursing facility after resolution of the UTI. She was in stable condition. The plan was to continue deep vein thrombosis (DVT) prophylaxis for 6 weeks with enoxaparin 30 mg twice daily, weight bearing as tolerated, physical therapy, and hydromorphone as needed for pain.

The patient then presented to the ED on 17-Oct-2019 with fatigue, nausea, and diarrhea. On route to the ED, her heart rate (HR) was 127, BP was 134/92, and SpO<sub>2</sub> was 95% on room air. In the ED, she underwent infectious work-up with blood cultures, urinalysis, and chest X-ray that were unrevealing. She then underwent a CT scan which showed a right lower lobe subsegmental pulmonary embolism, with wedge-shaped consolidation suspicious for pulmonary infarct. The patient was admitted and started on enoxaparin 1 mg/kg *quaque* (every) 12 hours (q12hr). She was discharged in stable condition to a skilled nursing facility on 19-Oct-2019. The plan was to continue physical therapy.

On 14-Dec-2019, the patient was readmitted with positive staph bacteremia and was started on IV daptomycin. An echocardiogram found an abnormality on the anterior mitral valve, presumed to be endocarditis secondary to an infected MediPort. The MediPort was removed during the hospital course. The patient was kept on daptomycin for 6 weeks. On 14-Dec-2019, the patient was changed from prophylactic to therapeutic enoxaparin for 3-6 months. Repeat cultures done during the hospital stay remained negative. The patient was discharged on daptomycin with diagnosis of endocarditis secondary to staph bacteremia port infection.

On 08-May-2020, the patient was seen in clinic for a routine physical exam and was found to have significant dysphagia, causing significant weight loss and pill retention. She was admitted for IV fluids, IV medication, nutrition consult, and endoscopy. Endoscopy on 09-May-2020 showed esophageal erythema and gastritis/duodenitis. Schatzki's ring resolved with insufflation. Biopsy showed duodenal mucosa with gastric foveolar metaplasia, esophagitis with intraepithelial eosinophils, no evidence of colitis, and no evidence of GvHD. Sigmoidoscopy performed on 09-May-2020 showed normal colon and rectum. The patient received a swallow evaluation and was "cleared". She received omeprazole, mirtazapine, and a Dob Hoff tube. She was able to tolerate tube as well as oral feedings. The patient's phosphorous dropped on 15-May-2019 to 0.9 but there was otherwise no evidence of refeeding syndrome. The patient was discharged on 16-May-2020 with a good appetite and calorie intake.

The patient reported non-small cell lung cancer, treated by surgery on 21-Jul-2021 (Day +817). The frozen section was consistent with non-small cell lung cancer, and margins were negative. It was not assessed whether this malignancy was donor-derived.

The patient was alive at their last follow-up on 25-Apr-2024 (Day +1826).

Abbreviations: AML = acute myelogenous leukemia; BP = blood pressure; C= cycle; CT = computed tomography; DEXA = dual-energy X-ray absorptiometry; DVT = deep vein thrombosis; *E. coli* = *Escherichia coli*; ED = emergency

department; GI = gastrointestinal; GvHD = graft-versus-host disease; HiDAC = high-dose cytarabine; HR = heart rate; IV = intravenous; K = thousand; MMF = mycophenolate mofetil; q12hr = <i>quaque</i> (every) 12 hours; SpO <sub>2</sub> = oxygen saturation; staph = <i>Staphylococcus</i> ; TBI = total body irradiation; UTI = urinary tract infection; WBC = white blood cell
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## **16. LIST OF APPENDICES**

### **16.1. Study Information**

#### **16.1.1. Protocols and Amendments**

Refer to section 16.1.1 of the main study CSR.

#### **16.1.2. Sample Case Report Forms**

#### **16.1.3. List of Institutional Review Boards, Sample Consent Forms**

#### **16.1.4. List of Investigators and Other Important Participants and Descriptions of Qualifications**

#### **16.1.5. Signatures of Investigator and or Sponsor's Responsible Medical Officer**

#### **16.1.6. List of Patients Receiving Test Drug(s)/Investigational Products from Specific Batches, Where More Than One Batch Was Used**

Not applicable – No treatment administered.

#### **16.1.7. Randomization Scheme and Codes**

Not applicable – Single arm study.

#### **16.1.8. Audit Certificates**

Not applicable as no audits were performed.

#### **16.1.9. Documentation of Statistical Methods**

#### **16.1.10. Documentation of Inter-laboratory Standardization Methods and Quality Assurance Procedures**

Not applicable.

#### **16.1.11. Publications Based on the Clinical Study**

Lin, C., A. Schwarzbach, J. Sanz, P. Montesinos, P. Stiff, S. Parikh, C. Brunstein, C. Cutler, C. A. Lindemans, R. Hanna, L. P. Koh, M. H. Jagasia, D. Valcarcel, R. T. Maziarz, A. K. Keating, W. Y. K. Hwang, A. R. Rezvani, N. A. Karras, J. F. Fernandes, V. Rocha, I. Badell, R. Ram, G. J. Schiller, L. Volodin, M. C. Walters, N. Hamerschlak, D. Cilloni, O. Frankfurt, J. P. McGuirk, J. Kurtzberg, G. Sanz, R. Simantov, and M. E. Horwitz. 2023. 'Multicenter Long-Term Follow-Up of Allogeneic Hematopoietic Cell Transplantation with Omidubicel: A Pooled Analysis of Five Prospective Clinical Trials', *Transplant Cell Ther*, 29: 338 e1-38 e6. ([Lin et al. 2023](#))

#### **16.1.12. Important Publications Referenced in the Report**

Available upon request

## 16.2. Patient Data Listings

### 16.2.1. Discontinued Patients

<a href="#">Listing 16.2.1.1</a>	Listing of Vital Status on GP3 LTF (GP3 LTF Patients)
<a href="#">Listing 16.2.1.2</a>	Listing of Withdrawals (GP3 LTF Patients)
<a href="#">Listing 16.2.1.3</a>	Listing of Patients Who Were Lost to Follow-up Post Transplant (GP3 LTF Patients)

### 16.2.2. Protocol Deviations

<a href="#">Listing 16.2.2.1</a>	Listing of All Protocol Deviations (GP3 LTF Patients)
<a href="#">Listing 16.2.2.2</a>	Listing of Active Deviations (GP3 Patients)
<a href="#">Listing 16.2.2.3</a>	Major or Critical Protocol Deviations Not Related to the COVID-19 Public Health Emergency (GP3 Patients)
<a href="#">Listing 16.2.2.4</a>	Minor Protocol Deviations Not Related to the COVID-19 Public Health Emergency (GP3 Patients)

### 16.2.3. Patients Excluded from the Efficacy Analysis

Not applicable.

### 16.2.4. Demographic Data

<a href="#">Listing 16.2.4.1</a>	Listing of Demographics and Baseline Data for Patients Enrolled on GP3 LTF (GP3 LTF Patients)
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### 16.2.5. Compliance and/or Drug Concentration Data

Not applicable.

### 16.2.6. Individual Efficacy Response Data

<a href="#">Listing 16.2.6.1</a>	Listing of Chimerism Results (GP3 LTF Patients)
<a href="#">Listing 16.2.6.2</a>	Listing of Post Treatment Second Transplant or Progression/Relapse Status During GP3 Main Study (GP3 LTF Patients)
<a href="#">Listing 16.2.6.3</a>	Listing of Post Treatment Second Transplant or Progression/Relapse Status During GP3 LTF (GP3 LTF Patients)
<a href="#">Listing 16.2.6.4</a>	Listing of Immune Reconstitution Results (GP3 LTF Patients)

### 16.2.7. Adverse Event Listings (Each Patient)

Not applicable.

### 16.2.8. Listing of Individual Laboratory Measurements by Patient

<a href="#">Listing 16.2.8.1</a>	CBC Results (GP3 LTF Patients)
<a href="#">Listing 16.2.8.2</a>	Listing of Differential Results (GP3 LTF Patients)

### 16.2.9. Listing of Individual Vital Signs Measurements and Other Safety Observations by Patient

<a href="#">Listing 16.2.9.1</a>	Listing of Vital Signs (GP3 LTF Patients)
<a href="#">Listing 16.2.9.2</a>	Listing of Post Transplant Secondary Graft Failure Status (GP3 LTF Patients)
<a href="#">Listing 16.2.9.3</a>	Listing of Chronic GvHD Status (GP3 LTF Patients)
<a href="#">Listing 16.2.9.4</a>	Listing of Post Transplant New Malignancy Status (GP3 LTF Patients)

## 16.3. Case Report Forms

### 16.3.1. 16.3.1 Case Report Forms for Deaths, SAEs, and Withdrawals

Patient ID	Treatment Received	Death	Secondary Malignancy
<a href="#">GP3CCF-006</a>	Omidubicel	x	
<a href="#">GP3DFC-001</a>	Omidubicel	x	
<a href="#">GP3DFC-004</a>	UCBU	x	
<a href="#">GP3DFC-009</a>	Omidubicel		x
<a href="#">GP3DUK-012</a>	UCBU		x
<a href="#">GP3DUP-001</a>	Omidubicel	x	
<a href="#">GP3HSP-001</a>	Omidubicel	x	
<a href="#">GP3LOY-003</a>	Omidubicel	x	x
<a href="#">GP3LOY-004</a>	UCBU	x	
<a href="#">GP3LOY-007</a>	Omidubicel	x	
<a href="#">GP3OHS-001</a>	Omidubicel		x
<a href="#">GP3PMC-001</a>	UCBU	x	
<a href="#">GP3UMN-001</a>	Omidubicel		x
<a href="#">GP3UMN-005</a>	Omidubicel	x	
<a href="#">GP3UTR-002</a>	UCBU	x	x

Abbreviations: ID = identifier; UCBU = unmanipulated cord blood unit

### 16.3.2. Other CRFs submitted

Not applicable.

## 16.4. Individual Patient Data Listing (US Archival Listing)

Not applicable. Listings of individual patient data are provided in [Appendix 16.2](#).