Clinical trial results:
A Phase II Randomized, Double-Blind, Placebo-Controlled Trial of MCMV5322A/MCMV3068A for the Prevention of Cytomegalovirus Disease in High-Risk Kidney Allograft Recipients

Summary

EudraCT number	2012-002245-37
Trial protocol	NO BE GB ES DE SE
Global end of trial date	22 November 2014

Results information

Result version number	v1 (current)
This version publication date	07 May 2016
First version publication date	07 May 2016

Trial information

Trial identification

Sponsor protocol code	GV28418

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT01753167
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	F. Hoffmann-La Roche AG
Sponsor organisation address	Grenzacherstrasse 124, Basel, Switzerland, CH-4070
Public contact	F. Hoffmann-La Roche AG, Roche Trial Information Hotline, 41 616878333, global.trial_information@roche.com
Scientific contact	F. Hoffmann-La Roche AG, Roche Trial Information Hotline, 41 616878333, global.trial_information@roche.com

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	No
Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial?	No
Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	No

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	30 June 2014
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	22 November 2014
Was the trial ended prematurely?	Yes

Notes:

General information about the trial

Main objective of the trial:

• To evaluate the safety of multiple intravenous (IV) doses of MCMV5322A/MCMV3068A given to cytomegalovirus (CMV) seronegative recipients of a renal transplant from a CMV-seropositive donor.
• To determine the clinical activity of multiple IV doses of MCMV5322A/MCMV3068A given to CMV-seronegative recipients of a renal transplant from a CMV-seropositive donor.

Protection of trial subjects:

This study was conducted in full conformance with the International Conference on Harmonisation (ICH) E6 guideline for Good Clinical Practice and the principles of the Declaration of Helsinki or the laws and regulations of the country in which the research was conducted, whichever affords the greater protection to the individual.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	06 October 2012
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Norway: 7
Country: Number of subjects enrolled	Spain: 13
Country: Number of subjects enrolled	Sweden: 12
Country: Number of subjects enrolled	United Kingdom: 6
Country: Number of subjects enrolled	Belgium: 9
Country: Number of subjects enrolled	Germany: 3
Country: Number of subjects enrolled	France: 12
Country: Number of subjects enrolled	United States: 58
Worldwide total number of subjects	120
EEA total number of subjects	62

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37	0

wk	
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	102
From 65 to 84 years	18
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

CMV-seronegative participants who received a renal allograf from a CMV-seropositive donor (D+R-) and met all inclusion/exclusion criteria were eligible for enrollment and randomization were screened and consented for enrollment.

Period 1

Period 1 title	Overall Study (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator

Arms

Are arms mutually exclusive?	Yes
Arm title	MCMV5322A/MCMV3068A

Arm description:

Participants received a total of four doses of MCMV5322A/MCMV3068A in CMV−seronegative recipients of a renal transplant from a CMV-seropositive donor, with use of a pre-emptive approach for prevention of CMV disease.

Arm type	Experimental
Investigational medicinal product name	MCMV5322A/MCMV3068A
Investigational medicinal product code	RO6855849/RO6855848
Other name	RG7667
Pharmaceutical forms	Concentrate and solvent for solution for infusion
Routes of administration	Intravenous use

Dosage and administration details:

MCMV5322A/MCMV3068A, 20 milligram per kilogram (mg/kg) [10 mg/kg each], IV infusion.

Arm title	Placebo

Arm description:

Participants received a total of four doses of placebo matched with MCMV5322A/MCMV3068A in CMV−seronegative recipients of a renal transplant from a CMV-seropositive donor, with use of a pre-emptive approach for prevention of CMV disease.

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Concentrate and solvent for solution for infusion
Routes of administration	Intravenous use

Dosage and administration details:

Placebo matched with MCMV5322A/MCMV3068A, 20 mg/kg (10 mg/kg each), IV infusion.

Number of subjects in period 1	MCMV5322A/MCMV3068A	Placebo
Started	60	60
Completed	48	52
Not completed	12	8
Consent withdrawn by subject	6	2
Physician decision	-	1
Protocol violation	1	-
Death	2	-
Adverse event	2	3
Unspecified	1	2

Baseline characteristics

Reporting groups	
Reporting group title	MCMV5322A/MCMV3068A
Reporting group description:	
Participants received a total of four doses of MCMV5322A/MCMV3068A in CMV−seronegative recipients of a renal transplant from a CMV-seropositive donor, with use of a pre-emptive approach for prevention of CMV disease.	
Reporting group title	Placebo
Reporting group description:	
Participants received a total of four doses of placebo matched with MCMV5322A/MCMV3068A in CMV−seronegative recipients of a renal transplant from a CMV-seropositive donor, with use of a pre-emptive approach for prevention of CMV disease.	

Reporting group values	MCMV5322A/MCMV3068A	Placebo	Total
Number of subjects	60	60	120
Age categorical Units: Subjects			
Age continuous Units: years			
arithmetic mean	49.2	49.5	
standard deviation	± 14.3	± 12.9	-
Gender categorical Units: Subjects			
Female	18	18	36
Male	42	42	84

End points

End points reporting groups

Reporting group title	MCMV5322A/MCMV3068A
Reporting group description:	
Participants received a total of four doses of MCMV5322A/MCMV3068A in CMV−seronegative recipients of a renal transplant from a CMV-seropositive donor, with use of a pre-emptive approach for prevention of CMV disease.	
Reporting group title	Placebo
Reporting group description:	
Participants received a total of four doses of placebo matched with MCMV5322A/MCMV3068A in CMV−seronegative recipients of a renal transplant from a CMV-seropositive donor, with use of a pre-emptive approach for prevention of CMV disease.	

Primary: Percentage of Participants With CMV Viral Load Greater than or Equal to (>=) 150 Copies per Milliliter (Copies/mL) at Week 12

End point title	Percentage of Participants With CMV Viral Load Greater than or Equal to (>=) 150 Copies per Milliliter (Copies/mL) at Week 12
End point description:	
The CMV viral load was measured in copies/mL by quantitative polymerase chain reaction (PCR) in plasma during the entirety of the study, at least weekly during Weeks 0-12, and at least every 2 weeks for Weeks 13-24. Analysis was performed on modified intent to treat (mITT) population. mITT population included all the participants who received at least one dose of the study medication.	
End point type	Primary
End point timeframe:	
Week 12	

End point values	MCMV5322A/MCMV3068A	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	59	57		
Units: percentage of participants				
number (not applicable)	45.8	61.4		

Statistical analyses

Statistical analysis title	Statistical Analysis 1
Comparison groups	MCMV5322A/MCMV3068A v Placebo
Number of subjects included in analysis	116
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.101 [1]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Stratum Adjusted Difference
Point estimate	15.3

Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.8
upper limit	32.2

Notes:

[1] - Comparison of MCMV5322A/MCMV3068A with placebo using CochranMantelHaenszel weights and stratified Newcombe Confidence Intervals.

Secondary: Percentage of Participants With CMV Viral Load >=150 Copies/mL at Week 24

End point title	Percentage of Participants With CMV Viral Load >=150 Copies/mL at Week 24

End point description:

The CMV viral load was measured in copies/mL by quantitative PCR in plasma during the entirety of the study, at least weekly during Weeks 0-12, and at least every 2 weeks for Weeks 13-24. Analysis was performed on mITT population.

End point type	Secondary

End point timeframe:

Week 24

End point values	MCMV5322A/MCMV3068A	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	59	57		
Units: percentage of participants				
number (not applicable)	50.8	70.2		

Statistical analyses

Statistical analysis title	Statistical Analysis 1
Comparison groups	Placebo v MCMV5322A/MCMV3068A
Number of subjects included in analysis	116
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.035 [2]
Method	Cochran-Mantel-Haenszel
Parameter estimate	Stratum Adjusted Difference
Point estimate	19.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.4
upper limit	35.6

Notes:

[2] - Comparison of MCMV5322A/MCMV3068A with placebo using CochranMantelHaenszel weights and stratified Newcombe Confidence Intervals

Secondary: Time to Detectable CMV Viral Load >=150 Copies/mL

End point title	Time to Detectable CMV Viral Load >=150 Copies/mL

End point description:

Time to detectable CMV viral load is defined as a time from transplant to first CMV viral load of >=150 copies/mL as assessed by a central laboratory. Analysis was performed on mITT population. The value "99999" represents non evaluable (NE) data, as the upper limit of 95% confidence interval was not reached at the time of analysis.

End point type	Secondary

End point timeframe:

Up to 24 Weeks

End point values	MCMV5322A/MCMV3068A	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	59	57		
Units: days				
median (confidence interval 95%)	139 (56 to 99999)	46 (36 to 83)		

Statistical analyses

Statistical analysis title	Statistical Analysis 1
Comparison groups	MCMV5322A/MCMV3068A v Placebo
Number of subjects included in analysis	116
Analysis specification	Pre-specified
Analysis type	superiority
P-value	= 0.009 [3]
Method	Regression, Cox
Parameter estimate	Hazard ratio (HR)
Point estimate	0.532
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.329
upper limit	0.86

Notes:

[3] - Median time to detectable CMV DNAemia was KaplanMeier estimates and pvalue was computed using unstratified log rank test. Hazard ratios were estimated by Cox regression.

Secondary: Viral Load at the First Detection of CMV Viremia (>=150 Copies/mL)

End point title	Viral Load at the First Detection of CMV Viremia (>=150 Copies/mL)

End point description:

The CMV viral load was measured in copies/mL by quantitative PCR in plasma during the entirety of the study.

End point type	Secondary

End point timeframe:

Up to 24 Weeks

End point values	MCMV5322A/MCMV3068A	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	0[4]	0[5]		
Units: copies/mL				
arithmetic mean (standard deviation)	()	()		

Notes:

[4] - As the development of the drug was terminated, the planned analysis was not performed.

[5] - As the development of the drug was terminated, the planned analysis was not performed.

Statistical analyses

No statistical analyses for this end point

Secondary: Peak Viral Load on or Following First Detection of CMV viremia (>=150 Copies/mL)

End point title	Peak Viral Load on or Following First Detection of CMV viremia (>=150 Copies/mL)

End point description:

The CMV viral load was measured in copies/mL by quantitative PCR in plasma during the entirety of the study.

End point type	Secondary

End point timeframe:

Up to 24 Weeks

End point values	MCMV5322A/MCMV3068A	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	0[6]	0[7]		
Units: copies/mL				
arithmetic mean (standard deviation)	()	()		

Notes:

[6] - As the development of the drug was terminated, the planned analysis was not performed.

[7] - As the development of the drug was terminated, the planned analysis was not performed.

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants who Require Initiation of Pre-emptive Antiviral Therapy During the First 12 Weeks and 24 Weeks After Transplantation

End point title	Percentage of Participants who Require Initiation of Pre-emptive Antiviral Therapy During the First 12 Weeks and 24 Weeks After Transplantation

End point description:

Participants received pre-emptive antiviral therapy at the discretion of investigator, when viral load is felt to be clinically meaningful. A pre-emptive approach to CMV prevention involves initiation of anti-CMV therapy only in participants in whom early replication of CMV occurs rather than universal prophylaxis, where antiviral treatment is given to all transplant recipients at the time of transplantation.

End point type	Secondary

End point timeframe:

12 and 24 Weeks

End point values	MCMV5322A/MCMV3068A	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	0[8]	0[9]		
Units: percentage of participants				
number (not applicable)				

Notes:

[8] - As the development of the drug was terminated, the planned analysis was not performed.

[9] - As the development of the drug was terminated, the planned analysis was not performed.

Statistical analyses

No statistical analyses for this end point

Secondary: Time to Initiation of First use of Preemptive Antiviral Therapy

End point title	Time to Initiation of First use of Preemptive Antiviral Therapy

End point description:

Time to initiation of pre-emptive antiviral therapy is the difference from the date of randomization to initiation of therapy.

End point type	Secondary

End point timeframe:

24 Weeks

End point values	MCMV5322A/MCMV3068A	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	0[10]	0[11]		
Units: weeks				
median (confidence interval 95%)	(to)	(to)		

Notes:

[10] - As the development of the drug was terminated, the planned analysis was not performed.

[11] - As the development of the drug was terminated, the planned analysis was not performed.

Statistical analyses

No statistical analyses for this end point

Secondary: Duration of First use of Pre-emptive Antiviral Therapy Initiated During the First 12 and 24 Weeks After Transplantation

End point title	Duration of First use of Pre-emptive Antiviral Therapy Initiated During the First 12 and 24 Weeks After Transplantation

End point description:

Computation of duration of the use of pre-emptive antiviral therapy: if the participants received therapy till the end of the study, the duration was imputed as the median longest duration observed across all

participants or the actual duration plus 1 week (delta) at the end of the study, whichever is the longer.

End point type	Secondary

End point timeframe:

12, 24 Weeks

End point values	MCMV5322A/MCMV3068A	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	0[12]	0[13]		
Units: days				
median (confidence interval 95%)	(to)	(to)		

Notes:

[12] - As the development of the drug was terminated, the planned analysis was not performed.

[13] - As the development of the drug was terminated, the planned analysis was not performed.

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants With CMV Syndrome or Tissue-Invasive CMV Disease During the First 24 Weeks After Transplantation

End point title	Percentage of Participants With CMV Syndrome or Tissue-Invasive CMV Disease During the First 24 Weeks After Transplantation

End point description:

Clinical evidence of CMV syndrome manifested by the presence of CMV in blood and at least one of the following: Fever of >=38 degree centigrade or 100.4 degree Fahrenheit, New or increased malaise, Leukopenia (white blood cells [WBC] of <3500/microliter [µL] or WBC decrease of >20%), Atypical lymphocytosis of >=5%, Thrombocytopenia (platelets count of <100000/µL or decrease of >20%). Clinical evidence of systemic CMV infection as manifested by the presence of CMV in the blood and at least one of the following: localized CMV infection in a biopsy or other appropriate specimen or relevant symptoms or signs of organ dysfunction that is unlikely to be due to other causes.

End point type	Secondary

End point timeframe:

24 Weeks

End point values	MCMV5322A/MCMV3068A	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	0[14]	0[15]		
Units: percentage of participants				
number (not applicable)				

Notes:

[14] - As the development of the drug was terminated, the planned analysis was not performed.

[15] - As the development of the drug was terminated, the planned analysis was not performed.

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Participants With Change in CMV Serostatus

End point title	Percentage of Participants With Change in CMV Serostatus

End point description:

A single blood sample was collected at study completion/early termination to detect the presence of CMV antibodies (IgG) produced in response to CMV infection.

End point type	Secondary

End point timeframe:

Week 24 or at early termination

End point values	MCMV5322A/MCMV3068A	Placebo		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	0[16]	0[17]		
Units: percentage of participants				
number (not applicable)				

Notes:

[16] - As the development of the drug was terminated, the planned analysis was not performed.

[17] - As the development of the drug was terminated, the planned analysis was not performed.

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

24 Weeks

Assessment type	Non-systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	15.1

Reporting groups

Reporting group title	MCMV5322A/MCMV3068A

Reporting group description:

Participants received a total of four doses of MCMV5322A/MCMV3068A in CMV−seronegative recipients of a renal transplant from a CMV-seropositive donor, with use of a pre-emptive approach for prevention of CMV disease.

Reporting group title	Placebo

Reporting group description:

Participants received a total of four doses of placebo matched with MCMV5322A/MCMV3068A in CMV−seronegative recipients of a renal transplant from a CMV-seropositive donor, with use of a preemptive approach for prevention of CMV disease.

Serious adverse events	MCMV5322A/MCMV3068A	Placebo	
Total subjects affected by serious adverse events			
subjects affected / exposed	30 / 60 (50.00%)	35 / 58 (60.34%)	
number of deaths (all causes)	2	2	
number of deaths resulting from adverse events			
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Adenocarcinoma			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Vascular disorders			
Lymphocele			
subjects affected / exposed	2 / 60 (3.33%)	3 / 58 (5.17%)	
occurrences causally related to treatment / all	0 / 4	0 / 3	
deaths causally related to treatment / all	0 / 0	0 / 0	
Bloody discharge			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	

Deep vein thrombosis			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hypertension			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hypotension			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Peripheral artery thrombosis			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
General disorders and administration site conditions			
Drug resistance			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
General physical health deterioration			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hyperthermia			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Pyrexia			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	

Immune system disorders			
Kidney transplant rejection			
subjects affected / exposed	1 / 60 (1.67%)	3 / 58 (5.17%)	
occurrences causally related to treatment / all	0 / 1	0 / 4	
deaths causally related to treatment / all	0 / 0	0 / 0	
Transplant rejection			
subjects affected / exposed	0 / 60 (0.00%)	2 / 58 (3.45%)	
occurrences causally related to treatment / all	0 / 0	0 / 3	
deaths causally related to treatment / all	0 / 0	0 / 0	
Respiratory, thoracic and mediastinal disorders			
Acute respiratory failure			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Dyspnoea			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	1 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Dyspnoea paroxysmal nocturnal			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Interstitial lung disease			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 1	
Psychiatric disorders			
Depression			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Mental status change			

subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Investigations			
Blood creatinine increased			
subjects affected / exposed	3 / 60 (5.00%)	2 / 58 (3.45%)	
occurrences causally related to treatment / all	0 / 3	0 / 3	
deaths causally related to treatment / all	0 / 0	0 / 0	
Alanine aminotransferase increased			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
ECG signs of myocardial ischaemia			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Renal function test abnormal			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Injury, poisoning and procedural complications			
Abdominal wound dehiscence			
subjects affected / exposed	0 / 60 (0.00%)	2 / 58 (3.45%)	
occurrences causally related to treatment / all	0 / 0	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Graft loss			
subjects affected / exposed	2 / 60 (3.33%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 2	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Arteriovenous fistula aneurysm			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	

Complications of transplanted kidney			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Perinephric collection			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Renal haematoma			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Suture rupture			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Toxicity to various agents			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Urinary anastomotic leak			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Wound dehiscence			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cardiac disorders			
Acute myocardial infarction			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 1	0 / 0	
Myocardial ischaemia			

subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Nervous system disorders			
Anticholinergic syndrome			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Ischaemic stroke			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	1 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Blood and lymphatic system disorders			
Anaemia			
subjects affected / exposed	0 / 60 (0.00%)	2 / 58 (3.45%)	
occurrences causally related to treatment / all	0 / 0	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Leukopenia			
subjects affected / exposed	0 / 60 (0.00%)	2 / 58 (3.45%)	
occurrences causally related to treatment / all	0 / 0	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Aplastic anaemia			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Neutropenia			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Eye disorders			
Blindness			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	

Gastrointestinal disorders			
Abdominal distension			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Diarrhoea			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Nausea			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Retching			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Vomiting			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Renal and urinary disorders			
Renal impairment			
subjects affected / exposed	1 / 60 (1.67%)	3 / 58 (5.17%)	
occurrences causally related to treatment / all	0 / 1	0 / 4	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hydronephrosis			
subjects affected / exposed	2 / 60 (3.33%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 2	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Ureteric stenosis			
subjects affected / exposed	1 / 60 (1.67%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 1	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	

Urethral stenosis			
subjects affected / exposed	0 / 60 (0.00%)	2 / 58 (3.45%)	
occurrences causally related to treatment / all	0 / 0	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Urinary retention			
subjects affected / exposed	0 / 60 (0.00%)	2 / 58 (3.45%)	
occurrences causally related to treatment / all	0 / 0	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Obstructive uropathy			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Proteinuria			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Renal cortical necrosis			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Renal failure acute			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Musculoskeletal and connective tissue disorders			
Musculoskeletal pain			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Infections and infestations			
Urinary tract infection			
subjects affected / exposed	4 / 60 (6.67%)	3 / 58 (5.17%)	
occurrences causally related to treatment / all	0 / 5	0 / 6	
deaths causally related to treatment / all	0 / 0	0 / 0	

Cytomegalovirus viraemia			
subjects affected / exposed	2 / 60 (3.33%)	2 / 58 (3.45%)	
occurrences causally related to treatment / all	1 / 2	1 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Pyelonephritis			
subjects affected / exposed	2 / 60 (3.33%)	2 / 58 (3.45%)	
occurrences causally related to treatment / all	0 / 2	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cytomegalovirus infection			
subjects affected / exposed	1 / 60 (1.67%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	1 / 1	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cytomegalovirus syndrome			
subjects affected / exposed	1 / 60 (1.67%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	1 / 1	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Pneumonia			
subjects affected / exposed	1 / 60 (1.67%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 1	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cytomegalovirus enteritis			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cytomegalovirus gastroenteritis			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	1 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Escherichia pyelonephritis			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Gastrointestinal infection			

subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Herpes zoster			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Lower respiratory tract infection			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Osteomyelitis			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Parasitic encephalitis			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 1	0 / 0	
Pneumonia cytomegaloviral			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	1 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Post procedural cellulitis			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Pyelonephritis acute			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Sepsis			

subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 1	
Urosepsis			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Wound infection			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Metabolism and nutrition disorders			
Dehydration			
subjects affected / exposed	0 / 60 (0.00%)	3 / 58 (5.17%)	
occurrences causally related to treatment / all	0 / 0	0 / 3	
deaths causally related to treatment / all	0 / 0	0 / 0	
Fluid overload			
subjects affected / exposed	0 / 60 (0.00%)	2 / 58 (3.45%)	
occurrences causally related to treatment / all	0 / 0	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hyperglycaemia			
subjects affected / exposed	0 / 60 (0.00%)	2 / 58 (3.45%)	
occurrences causally related to treatment / all	0 / 0	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Gout			
subjects affected / exposed	1 / 60 (1.67%)	0 / 58 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hyperkalaemia			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hypervolaemia			

subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hypocalcaemia			
subjects affected / exposed	0 / 60 (0.00%)	1 / 58 (1.72%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	

Frequency threshold for reporting non-serious adverse events: 5 %

Non-serious adverse events	MCMV5322A/MCMV3068A	Placebo	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	59 / 60 (98.33%)	57 / 58 (98.28%)	
Vascular disorders			
Hypertension			
subjects affected / exposed	13 / 60 (21.67%)	8 / 58 (13.79%)	
occurrences (all)	13	9	
Hypotension			
subjects affected / exposed	5 / 60 (8.33%)	6 / 58 (10.34%)	
occurrences (all)	9	6	
General disorders and administration site conditions			
Fatigue			
subjects affected / exposed	11 / 60 (18.33%)	8 / 58 (13.79%)	
occurrences (all)	11	8	
Pyrexia			
subjects affected / exposed	5 / 60 (8.33%)	11 / 58 (18.97%)	
occurrences (all)	7	13	
Oedema peripheral			
subjects affected / exposed	6 / 60 (10.00%)	6 / 58 (10.34%)	
occurrences (all)	9	6	
Peripheral swelling			
subjects affected / exposed	4 / 60 (6.67%)	5 / 58 (8.62%)	
occurrences (all)	4	5	
Asthenia			

subjects affected / exposed	4 / 60 (6.67%)	3 / 58 (5.17%)	
occurrences (all)	4	3	
Oedema			
subjects affected / exposed	3 / 60 (5.00%)	4 / 58 (6.90%)	
occurrences (all)	3	4	
Chest pain			
subjects affected / exposed	0 / 60 (0.00%)	4 / 58 (6.90%)	
occurrences (all)	0	4	
Pain			
subjects affected / exposed	1 / 60 (1.67%)	3 / 58 (5.17%)	
occurrences (all)	1	3	
Immune system disorders			
Kidney transplant rejection			
subjects affected / exposed	1 / 60 (1.67%)	4 / 58 (6.90%)	
occurrences (all)	1	6	
Respiratory, thoracic and mediastinal disorders			
Dyspnoea			
subjects affected / exposed	4 / 60 (6.67%)	6 / 58 (10.34%)	
occurrences (all)	4	6	
Cough			
subjects affected / exposed	3 / 60 (5.00%)	5 / 58 (8.62%)	
occurrences (all)	3	6	
Oropharyngeal pain			
subjects affected / exposed	3 / 60 (5.00%)	4 / 58 (6.90%)	
occurrences (all)	3	4	
Psychiatric disorders			
Insomnia			
subjects affected / exposed	4 / 60 (6.67%)	8 / 58 (13.79%)	
occurrences (all)	7	8	
Anxiety			
subjects affected / exposed	4 / 60 (6.67%)	3 / 58 (5.17%)	
occurrences (all)	4	3	
Investigations			
Cytomeglaovirus test positive			
subjects affected / exposed	7 / 60 (11.67%)	6 / 58 (10.34%)	
occurrences (all)	9	13	

Blood creatinine increased			
subjects affected / exposed	4 / 60 (6.67%)	7 / 58 (12.07%)	
occurrences (all)	4	10	
Weight increased			
subjects affected / exposed	3 / 60 (5.00%)	2 / 58 (3.45%)	
occurrences (all)	3	2	
Blood uric acid increased			
subjects affected / exposed	3 / 60 (5.00%)	0 / 58 (0.00%)	
occurrences (all)	3	0	
Injury, poisoning and procedural complications			
Procedural pain			
subjects affected / exposed	5 / 60 (8.33%)	2 / 58 (3.45%)	
occurrences (all)	5	2	
Complications of transplant surgery			
subjects affected / exposed	1 / 60 (1.67%)	5 / 58 (8.62%)	
occurrences (all)	1	5	
Arteriovenous fistula thrombosis			
subjects affected / exposed	1 / 60 (1.67%)	4 / 58 (6.90%)	
occurrences (all)	1	4	
Complications of transplanted kidney			
subjects affected / exposed	4 / 60 (6.67%)	1 / 58 (1.72%)	
occurrences (all)	4	1	
Incision site pain			
subjects affected / exposed	3 / 60 (5.00%)	2 / 58 (3.45%)	
occurrences (all)	3	2	
Graft complication			
subjects affected / exposed	3 / 60 (5.00%)	0 / 58 (0.00%)	
occurrences (all)	3	0	
Ligament Sprain			
subjects affected / exposed	3 / 60 (5.00%)	0 / 58 (0.00%)	
occurrences (all)	3	0	
Cardiac disorders			
Tachycardia			
subjects affected / exposed	4 / 60 (6.67%)	2 / 58 (3.45%)	
occurrences (all)	4	2	
Nervous system disorders			

Tremor			
subjects affected / exposed	11 / 60 (18.33%)	7 / 58 (12.07%)	
occurrences (all)	13	7	
Headache			
subjects affected / exposed	7 / 60 (11.67%)	8 / 58 (13.79%)	
occurrences (all)	7	8	
Dizziness			
subjects affected / exposed	9 / 60 (15.00%)	3 / 58 (5.17%)	
occurrences (all)	10	3	
Hypoaesthesia			
subjects affected / exposed	7 / 60 (11.67%)	1 / 58 (1.72%)	
occurrences (all)	7	1	
Paraesthesia			
subjects affected / exposed	2 / 60 (3.33%)	5 / 58 (8.62%)	
occurrences (all)	2	5	
Lethargy			
subjects affected / exposed	0 / 60 (0.00%)	3 / 58 (5.17%)	
occurrences (all)	0	3	
Blood and lymphatic system disorders			
Anaemia			
subjects affected / exposed	16 / 60 (26.67%)	20 / 58 (34.48%)	
occurrences (all)	18	20	
Leukopenia			
subjects affected / exposed	4 / 60 (6.67%)	13 / 58 (22.41%)	
occurrences (all)	4	14	
Neutropenia			
subjects affected / exposed	2 / 60 (3.33%)	8 / 58 (13.79%)	
occurrences (all)	2	8	
Thrombocytopenia			
subjects affected / exposed	1 / 60 (1.67%)	5 / 58 (8.62%)	
occurrences (all)	1	5	
Leukocytosis			
subjects affected / exposed	2 / 60 (3.33%)	3 / 58 (5.17%)	
occurrences (all)	2	3	
Lymphopenia			

subjects affected / exposed	1 / 60 (1.67%)	3 / 58 (5.17%)	
occurrences (all)	1	3	
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	22 / 60 (36.67%)	19 / 58 (32.76%)	
occurrences (all)	26	24	
Nausea			
subjects affected / exposed	9 / 60 (15.00%)	14 / 58 (24.14%)	
occurrences (all)	11	15	
Constipation			
subjects affected / exposed	12 / 60 (20.00%)	10 / 58 (17.24%)	
occurrences (all)	13	11	
Vomiting			
subjects affected / exposed	5 / 60 (8.33%)	10 / 58 (17.24%)	
occurrences (all)	5	11	
Dyspepsia			
subjects affected / exposed	7 / 60 (11.67%)	5 / 58 (8.62%)	
occurrences (all)	8	7	
Abdominal pain			
subjects affected / exposed	4 / 60 (6.67%)	7 / 58 (12.07%)	
occurrences (all)	5	7	
Abdominal distension			
subjects affected / exposed	2 / 60 (3.33%)	3 / 58 (5.17%)	
occurrences (all)	2	3	
Flatulence			
subjects affected / exposed	3 / 60 (5.00%)	2 / 58 (3.45%)	
occurrences (all)	3	2	
Abdominal pain upper			
subjects affected / exposed	0 / 60 (0.00%)	3 / 58 (5.17%)	
occurrences (all)	0	3	
Skin and subcutaneous tissue disorders			
Pruritus			
subjects affected / exposed	4 / 60 (6.67%)	2 / 58 (3.45%)	
occurrences (all)	4	2	
Ecchymosis			

subjects affected / exposed	3 / 60 (5.00%)	1 / 58 (1.72%)	
occurrences (all)	3	1	
Renal and urinary disorders			
Proteinuria			
subjects affected / exposed	4 / 60 (6.67%)	3 / 58 (5.17%)	
occurrences (all)	4	3	
Haematuria			
subjects affected / exposed	1 / 60 (1.67%)	5 / 58 (8.62%)	
occurrences (all)	1	5	
Renal impairment			
subjects affected / exposed	3 / 60 (5.00%)	1 / 58 (1.72%)	
occurrences (all)	4	1	
Musculoskeletal and connective tissue disorders			
Back pain			
subjects affected / exposed	3 / 60 (5.00%)	8 / 58 (13.79%)	
occurrences (all)	3	10	
Arthralgia			
subjects affected / exposed	5 / 60 (8.33%)	5 / 58 (8.62%)	
occurrences (all)	5	6	
Muscle spasms			
subjects affected / exposed	3 / 60 (5.00%)	5 / 58 (8.62%)	
occurrences (all)	3	5	
Pain in extremity			
subjects affected / exposed	4 / 60 (6.67%)	4 / 58 (6.90%)	
occurrences (all)	4	5	
Infections and infestations			
Cytomegalovirus viraemia			
subjects affected / exposed	13 / 60 (21.67%)	20 / 58 (34.48%)	
occurrences (all)	15	33	
Urinary tract infection			
subjects affected / exposed	14 / 60 (23.33%)	19 / 58 (32.76%)	
occurrences (all)	17	27	
Cytomegalovirus infection			
subjects affected / exposed	13 / 60 (21.67%)	16 / 58 (27.59%)	
occurrences (all)	17	18	
Viraemia			

subjects affected / exposed	5 / 60 (8.33%)	6 / 58 (10.34%)	
occurrences (all)	5	7	
Nasopharyngitis			
subjects affected / exposed	2 / 60 (3.33%)	6 / 58 (10.34%)	
occurrences (all)	2	8	
Cytomegalovirus syndrome			
subjects affected / exposed	1 / 60 (1.67%)	5 / 58 (8.62%)	
occurrences (all)	1	6	
Upper respiratory tract infection			
subjects affected / exposed	5 / 60 (8.33%)	1 / 58 (1.72%)	
occurrences (all)	5	2	
BK virus infection			
subjects affected / exposed	3 / 60 (5.00%)	0 / 58 (0.00%)	
occurrences (all)	3	0	
Enterococcal infection			
subjects affected / exposed	0 / 60 (0.00%)	3 / 58 (5.17%)	
occurrences (all)	0	3	
Metabolism and nutrition disorders			
Hyperkalaemia			
subjects affected / exposed	7 / 60 (11.67%)	12 / 58 (20.69%)	
occurrences (all)	8	15	
Hypomagnesaemia			
subjects affected / exposed	8 / 60 (13.33%)	11 / 58 (18.97%)	
occurrences (all)	8	12	
Hypophosphataemia			
subjects affected / exposed	10 / 60 (16.67%)	8 / 58 (13.79%)	
occurrences (all)	10	9	
Metabolic acidosis			
subjects affected / exposed	7 / 60 (11.67%)	8 / 58 (13.79%)	
occurrences (all)	9	9	
Decreased Appetite			
subjects affected / exposed	4 / 60 (6.67%)	8 / 58 (13.79%)	
occurrences (all)	4	9	
Hypokalaemia			
subjects affected / exposed	5 / 60 (8.33%)	6 / 58 (10.34%)	
occurrences (all)	5	7	

Hyperglycaemia			
subjects affected / exposed	3 / 60 (5.00%)	6 / 58 (10.34%)	
occurrences (all)	3	7	
Hypercalcaemia			
subjects affected / exposed	4 / 60 (6.67%)	4 / 58 (6.90%)	
occurrences (all)	5	4	
Hypocalcaemia			
subjects affected / exposed	3 / 60 (5.00%)	4 / 58 (6.90%)	
occurrences (all)	3	4	
Diabetes mellitus			
subjects affected / exposed	3 / 60 (5.00%)	3 / 58 (5.17%)	
occurrences (all)	3	5	
Fluid overload			
subjects affected / exposed	4 / 60 (6.67%)	0 / 58 (0.00%)	
occurrences (all)	4	0	
Hyponatraemia			
subjects affected / exposed	3 / 60 (5.00%)	1 / 58 (1.72%)	
occurrences (all)	4	1	
Vitamin D deficiency			
subjects affected / exposed	3 / 60 (5.00%)	1 / 58 (1.72%)	
occurrences (all)	3	1	
Hypercholesterolaemia			
subjects affected / exposed	0 / 60 (0.00%)	3 / 58 (5.17%)	
occurrences (all)	0	3	
Iron deficiency			
subjects affected / exposed	3 / 60 (5.00%)	0 / 58 (0.00%)	
occurrences (all)	3	0	

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
27 October 2012	Protocol was amended to clarify the inclusion criteria relating to sexual abstinence in the context of contraception and to clarify the process for emergency unblinding of study treatment.
30 October 2012	Protocol was amended to clarify the algorithm for resistance testing. The protocol was also revised to enhance the clarity of the Study Flowchart by including a footnote that references and to clarify that protocol-related decisions (e.g., additional visits between Weeks 13 and 24) are to be based on central, not local, laboratory viral load results.
15 July 2013	The study population was changed to 120 participants (60 active and 60 placebo) and the window for study drug administration was changed to 24 hours before transplantation.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

As the development of the drug was terminated, the planned analysis of some secondary endpoints was not performed.

Notes: