Clinical trial results:
A Phase 1b, randomized, partially double-blind, placebo-controlled study to assess the pharmacokinetics, safety, and tolerability of multiple doses of orally administered JNJ-53718678 in infants hospitalized with Respiratory Syncytial Virus (RSV) infection.

Summary

EudraCT number	2015-002003-28
Trial protocol	SE BE ES NL IT
Global end of trial date	10 November 2017

Results information

Result version number	v1 (current)
This version publication date	23 May 2018
First version publication date	23 May 2018

Trial information

Trial identification

Sponsor protocol code	CR107945

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT02593851
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Janssen Sciences Ireland UC
Sponsor organisation address	Eastgate Village, Little Island, Ireland,
Public contact	Clinical Registry Group, Janssen Sciences Ireland UC, ClinicalTrialsEU@its.jnj.com
Scientific contact	Clinical Registry Group, Janssen Sciences Ireland UC, ClinicalTrialsEU@its.jnj.com

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	Yes
EMA paediatric investigation plan number(s)	EMEA-001838-PIP01-15
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?	Yes

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	10 November 2017
Is this the analysis of the primary completion data?	Yes
Primary completion date	10 November 2017
Global end of trial reached?	Yes
Global end of trial date	10 November 2017
Was the trial ended prematurely?	Yes

Notes:

General information about the trial

Main objective of the trial:

The primary purpose of this study was to evaluate the pharmacokinetics (PK) of JNJ-53718678 after multiple oral doses and the safety and tolerability of JNJ-53718678 when administered for 7 days in infants who were hospitalized with respiratory syncytial virus (RSV) infection.

Protection of trial subjects:

The study was conducted in accordance with the ethical principles that have their origin in the Declaration of Helsinki and that are consistent with Good Clinical Practices and applicable regulatory requirements.The safety assessments included clinical laboratory tests, vital sign measurements, electrocardiograms (ECGs), physical examinations and adverse events were reported throughout the study.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	04 December 2015
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	Argentina: 9
Country: Number of subjects enrolled	Australia: 1
Country: Number of subjects enrolled	Belgium: 2
Country: Number of subjects enrolled	Brazil: 3
Country: Number of subjects enrolled	Spain: 21
Country: Number of subjects enrolled	Italy: 8
Worldwide total number of subjects	44
EEA total number of subjects	31

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	44

Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	0
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

A total of 61 subjects were screened and 44 were randomized and treated, out of them 7 subjects randomized in placebo and 37 subjects randomized in JNJ-53718678 treatment groups. All treated subjects completed the study.

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	Investigator, Subject

Arms

Are arms mutually exclusive?	Yes
Arm title	JNJ-53718678 Low dose

Arm description:

Subjects received JNJ-53718678 2 milligram per kilogram (mg/kg), 1.5 mg/kg and 1mg/kg once daily (qd) oral solution on Day 1 to Day 7 in Cohorts 1a ,2a and 3a respectively for each age group in Part 1.

Arm type	Experimental
Investigational medicinal product name	JNJ-53718678
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Oral solution
Routes of administration	Oral use

Dosage and administration details:

Subjects received JNJ-53718678 2 mg/kg, 1.5 mg/kg and 1 mg/kg qd on Day 1 to Day 7 in Cohorts 1a ,2a and 3a respectively in Part 1 of study.

Arm title	JNJ-53718678 Mid dose

Arm description:

Subjects received JNJ-53718678 6mg/kg, 4.5 mg/kg and 3mg/kg qd oral solution on Day 1 to Day 7 in Cohorts 1b ,2b and 3b respectively for each age group in Part 1.

Arm type	Experimental
Investigational medicinal product name	JNJ-53718678
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Oral solution
Routes of administration	Oral use

Dosage and administration details:

Subjects received JNJ-53718678 6 mg/kg, 4.5 mg/kg and 3 mg/kg qd on Day 1 to Day 7 in Cohorts 1b ,2b and 3b respectively in Part 1 of study.

Arm title	JNJ-53718678 Cohort 1c

Arm description:

Subjects received JNJ-53718678 8mg/kg qd oral solution on Day 1 to Day 7 in Cohort 1c in age group of greater than or equal (>=) to 6 months and less than or equal (<=) to 24 months of in Part 1 .

Arm type	Experimental

Investigational medicinal product name	JNJ-53718678
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Oral solution
Routes of administration	Oral use

Dosage and administration details:

Subjects received JNJ-53718678 8 mg/kg qd on Day 1 to Day 7 in Part 1 of study.

Arm title	JNJ-53718678 High dose

Arm description:

Subjects received JNJ-53718678 9mg/kg, 6 mg/kg and 5mg/kg qd oral solution on Day 1 to Day 7 in Cohorts 1d ,2c and 3c respectively for each age group in Part 1.

Arm type	Experimental
Investigational medicinal product name	JNJ-53718678
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Oral solution
Routes of administration	Oral use

Dosage and administration details:

Subjects received JNJ-53718678 9 mg/kg, 6 mg/kg and 5 mg/kg qd on Day 1 to Day 7 in Cohorts 1d ,2c and 3c respectively in Part 1 of study.

Arm title	Placebo

Arm description:

Subjects received matched JNJ-53718678 Placebo qd oral solution on Day 1 to Day 7 in all cohorts of Part 1.

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Oral solution
Routes of administration	Oral use

Dosage and administration details:

Subjects received matched JNJ-53718678 Placebo qd on Day 1 to Day 7 in all cohorts of Part 1 of study.

Number of subjects in period 1	JNJ-53718678 Low dose	JNJ-53718678 Mid dose	JNJ-53718678 Cohort 1c
Started	12	12	4
Completed	12	12	4

Number of subjects in period 1	JNJ-53718678 High dose	Placebo
Started	9	7
Completed	9	7

Baseline characteristics

Reporting groups	
Reporting group title	JNJ-53718678 Low dose
Reporting group description:	
Subjects received JNJ-53718678 2 milligram per kilogram (mg/kg), 1.5 mg/kg and 1mg/kg once daily (qd) oral solution on Day 1 to Day 7 in Cohorts 1a ,2a and 3a respectively for each age group in Part 1.	
Reporting group title	JNJ-53718678 Mid dose
Reporting group description:	
Subjects received JNJ-53718678 6mg/kg, 4.5 mg/kg and 3mg/kg qd oral solution on Day 1 to Day 7 in Cohorts 1b ,2b and 3b respectively for each age group in Part 1.	
Reporting group title	JNJ-53718678 Cohort 1c
Reporting group description:	
Subjects received JNJ-53718678 8mg/kg qd oral solution on Day 1 to Day 7 in Cohort 1c in age group of greater than or equal (>=) to 6 months and less than or equal (<=) to 24 months of in Part 1 .	
Reporting group title	JNJ-53718678 High dose
Reporting group description:	
Subjects received JNJ-53718678 9mg/kg, 6 mg/kg and 5mg/kg qd oral solution on Day 1 to Day 7 in Cohorts 1d ,2c and 3c respectively for each age group in Part 1.	
Reporting group title	Placebo
Reporting group description:	
Subjects received matched JNJ-53718678 Placebo qd oral solution on Day 1 to Day 7 in all cohorts of Part 1.	

Reporting group values	JNJ-53718678 Low dose	JNJ-53718678 Mid dose	JNJ-53718678 Cohort 1c
Number of subjects	12	12	4
Title for AgeCategorical Units: subjects			
Newborns (0-27 days)	0	0	0
InfantsAndToddlers (28 days - 23 months)	12	12	4
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0
Title for AgeContinuous Units: months			
median	4.4	3.6	8.7
full range (min-max)	1.6 to 10.6	1.4 to 11.3	6.4 to 11.5
Title for Gender Units: subjects			
Female	4	6	2
Male	8	6	2
Contact with Health-Care Provider (HCP) before hospitalization Units: Subjects			
Contact with HCP: No	2	3	0
Contact with HCP: Yes	10	9	4
Time between start of Respiratory Infection and First dosing Units: Days			
median	5	5	5
full range (min-max)	3 to 7	4 to 8	3 to 7

RSV Viral Load at Baseline			
Units: Log10 copies per millilter			
median	4.89	4.71	5.37
full range (min-max)	2.14 to 7.96	2.14 to 8.3	2.88 to 6.66

Reporting group values	JNJ-53718678 High dose	Placebo	Total
Number of subjects	9	7	44
Title for AgeCategorical			
Units: subjects			
Newborns (0-27 days)	0	0	0
InfantsAndToddlers (28 days - 23 months)	9	7	44
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0
Title for AgeContinuous			
Units: months			
median	4.8	3.4	
full range (min-max)	1.3 to 20.4	1.9 to 13.9	-
Title for Gender			
Units: subjects			
Female	5	6	23
Male	4	1	21
Contact with Health-Care Provider (HCP) before hospitalization			
Units: Subjects			
Contact with HCP: No	2	2	9
Contact with HCP: Yes	7	5	35
Time between start of Respiratory Infection and First dosing			
Units: Days			
median	7	5	
full range (min-max)	2 to 9	3 to 12	-
RSV Viral Load at Baseline			
Units: Log10 copies per millilter			
median	5.73	4.65	
full range (min-max)	5.24 to 7.12	3.69 to 5.64	-

End points

End points reporting groups

Reporting group title	JNJ-53718678 Low dose
Reporting group description:	
Subjects received JNJ-53718678 2 milligram per kilogram (mg/kg), 1.5 mg/kg and 1mg/kg once daily (qd) oral solution on Day 1 to Day 7 in Cohorts 1a ,2a and 3a respectively for each age group in Part 1.	
Reporting group title	JNJ-53718678 Mid dose
Reporting group description:	
Subjects received JNJ-53718678 6mg/kg, 4.5 mg/kg and 3mg/kg qd oral solution on Day 1 to Day 7 in Cohorts 1b ,2b and 3b respectively for each age group in Part 1.	
Reporting group title	JNJ-53718678 Cohort 1c
Reporting group description:	
Subjects received JNJ-53718678 8mg/kg qd oral solution on Day 1 to Day 7 in Cohort 1c in age group of greater than or equal (>=) to 6 months and less than or equal (<=) to 24 months of in Part 1 .	
Reporting group title	JNJ-53718678 High dose
Reporting group description:	
Subjects received JNJ-53718678 9mg/kg, 6 mg/kg and 5mg/kg qd oral solution on Day 1 to Day 7 in Cohorts 1d ,2c and 3c respectively for each age group in Part 1.	
Reporting group title	Placebo
Reporting group description:	
Subjects received matched JNJ-53718678 Placebo qd oral solution on Day 1 to Day 7 in all cohorts of Part 1.	
Subject analysis set title	Part 1: Cohort 1a
Subject analysis set type	Intention-to-treat
Subject analysis set description:	
Subjects (greater than or equal to [>=] 6 months and less than or equal to [<=] 24 months of age) received dose of 2 milligram per kilogram body weight (mg/kg) oral solution of JNJ-53718678, once daily (qd) on Day 1 to Day 7.	
Subject analysis set title	Part 1: Cohort 1b
Subject analysis set type	Intention-to-treat
Subject analysis set description:	
Subjects (>= 6 months and <= 24 months of age) received dose of 6 mg/kg oral solution of JNJ-53718678 or placebo qd on Day 1 to Day 7.	
Subject analysis set title	Part 1: Cohort 1c
Subject analysis set type	Intention-to-treat
Subject analysis set description:	
Subjects (>= 6 months and <= 24 months of age) received dose of 8 mg/kg oral solution of JNJ-53718678 or placebo qd on Day 1 to Day 7.	
Subject analysis set title	Part 1: Cohort 1d
Subject analysis set type	Intention-to-treat
Subject analysis set description:	
Subjects (>= 6 months and <= 24 months of age) received dose of 9 mg/kg JNJ-53718678 oral solution or placebo qd on Day 1 to Day 7.	
Subject analysis set title	Part 1: Cohort 2a
Subject analysis set type	Intention-to-treat
Subject analysis set description:	
Subjects (>= 3 months and less than [<] 6 months of age) received dose of 1.5 mg/kg oral solution of JNJ-53718678 qd on Day 1 to Day 7.	
Subject analysis set title	Part 1: Cohort 2b
Subject analysis set type	Intention-to-treat
Subject analysis set description:	
Subjects (>=3 months and < 6 months of age) receive dose of 4.5 mg/kg oral solution of JNJ-53718678 or placebo qd on Day 1 to Day 7.	

Subject analysis set title	Part 1: Cohort 2c
Subject analysis set type	Intention-to-treat

Subject analysis set description:

Subjects (>= 3 months and < 6 months of age) received dose of 6 mg/kg oral solution of JNJ-53718678 or placebo qd on Day 1 to Day 7

Subject analysis set title	Part 1: Cohort 3a
Subject analysis set type	Intention-to-treat

Subject analysis set description:

Subjects (greater than (>) 1 month and < 3 months of age) received dose of 1 mg/kg oral solution of JNJ-53718678 qd on Day 1 to Day 7.

Subject analysis set title	Part 1: Cohort 3b
Subject analysis set type	Intention-to-treat

Subject analysis set description:

Subjects (> 1 month and < 3 months of age) received dose of 3 mg/kg oral solution of JNJ-53718678 or placebo qd on Day 1 to Day 7.

Subject analysis set title	Part 1: Cohort 3c
Subject analysis set type	Intention-to-treat

Subject analysis set description:

Subjects (> 1 month and < 3 months of age) received dose of 5 mg/kg oral solution of JNJ-53718678 or placebo qd on Day 1 to Day 7.

Primary: Maximum Observed Plasma Concentration (Cmax) of JNJ-53718678

End point title	Maximum Observed Plasma Concentration (Cmax) of JNJ-53718678[1]

End point description:

The Cmax was the maximum plasma concentration. Pharmacokinetic (PK) Analysis population included all randomized subjects who have received at least one dose of study medication (JNJ-53718678), all subjects with available PK data were evaluated for PK parameters. Here, 99999 signifies that Geometric Coefficient of variation was not estimable' due to number of subjects. The population PK model simulated data are reported for this end point.

End point type	Primary

End point timeframe:

Days 1, 3 and 7

Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: Descriptive statistical analysis was performed for this endpoint.

End point values	Part 1: Cohort 1a	Part 1: Cohort 1b	Part 1: Cohort 1c	Part 1: Cohort 1d
Subject group type	Subject analysis set	Subject analysis set	Subject analysis set	Subject analysis set
Number of subjects analysed	4	4	4	4
Units: nanogram per milliliter (ng/mL)				
geometric mean (geometric coefficient of variation)				
Day 1	546.8 (± 35.7)	1960.5 (± 58.1)	3346.9 (± 13.0)	2371.8 (± 70.8)
Day 3	717.1 (± 31.3)	3300.4 (± 12.6)	4300.1 (± 11.5)	3255.1 (± 59.5)
Day 7	721.3 (± 31.2)	3304.2 (± 12.3)	4298.8 (± 11.2)	3389.4 (± 52.9)

End point values	Part 1: Cohort 2a	Part 1: Cohort 2b	Part 1: Cohort 2c	Part 1: Cohort 3a

Subject group type	Subject analysis set	Subject analysis set	Subject analysis set	Subject analysis set
Number of subjects analysed	4	4	1	4
Units: nanogram per milliliter (ng/mL)				
geometric mean (geometric coefficient of variation)				
Day 1	727.5 (± 68.7)	2533.2 (± 25.0)	2556.8 (± 99999)	374.2 (± 18.5)
Day 3	880 (± 51.7)	3155.4 (± 27.3)	3500.9 (± 99999)	467.7 (± 5.3)
Day 7	938 (± 53.3)	3021.8 (± 41.2)	3131 (± 99999)	498 (± 13.2)

End point values	Part 1: Cohort 3b	Part 1: Cohort 3c		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	4	4		
Units: nanogram per milliliter (ng/mL)				
geometric mean (geometric coefficient of variation)				
Day 1	958.2 (± 15.2)	1866.6 (± 51.7)		
Day 3	1483.2 (± 16.1)	2580.3 (± 22.7)		
Day 7	1671.2 (± 14.6)	3001.8 (± 25.1)		

Statistical analyses

No statistical analyses for this end point

Primary: Area under the plasma concentration-time curve over the dosing interval (AUCtau) of JNJ-53718678

End point title	Area under the plasma concentration-time curve over the dosing interval (AUCtau) of JNJ-53718678[2]

End point description:

The AUCtau was the measure of the plasma drug concentration over the dosing interval. PK Analysis population included all randomized subjects who have received at least one dose of study medication (JNJ-53718678), all subjects with available PK data were evaluated for PK parameters. Here, 99999 signifies that Geometric Coefficient of variation was not estimable' due to number of subjects. The population PK model simulated data are reported for this end point.

End point type	Primary

End point timeframe:

Days 1, 3 and 7

Notes:

[2] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: Descriptive statistical analysis was performed for this endpoint.

End point values	Part 1: Cohort 1a	Part 1: Cohort 1b	Part 1: Cohort 1c	Part 1: Cohort 1d
Subject group type	Subject analysis set	Subject analysis set	Subject analysis set	Subject analysis set
Number of subjects analysed	4	4	4	4
Units: nano gram*hour per milliliter (ng.hr/mL)				
geometric mean (geometric coefficient of variation)				
Day 1	6047.2 (± 17.5)	18067.6 (± 59.7)	28655.3 (± 23.6)	24971.7 (± 43.8)
Day 3	7639 (± 24.2)	26416.7 (± 14.1)	33457.4 (± 32.1)	33246.5 (± 27.5)
Day 7	7738.8 (± 27.4)	26482.4 (± 15.1)	33528.7 (± 32.3)	35840.1 (± 22.6)

End point values	Part 1: Cohort 2a	Part 1: Cohort 2b	Part 1: Cohort 2c	Part 1: Cohort 3a
Subject group type	Subject analysis set	Subject analysis set	Subject analysis set	Subject analysis set
Number of subjects analysed	4	4	1	4
Units: nano gram*hour per milliliter (ng.hr/mL)				
geometric mean (geometric coefficient of variation)				
Day 1	6658.4 (± 25.6)	26345.5 (± 11.8)	30484.8 (± 99999)	4495.6 (± 4.8)
Day 3	8435.5 (± 16.6)	32392.7 (± 9.5)	39278 (± 99999)	5788.9 (± 15)
Day 7	8620.9 (± 17.3)	28904.2 (± 32.3)	34980.3 (± 99999)	5827 (± 12.3)

End point values	Part 1: Cohort 3b	Part 1: Cohort 3c		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	4	4		
Units: nano gram*hour per milliliter (ng.hr/mL)				
geometric mean (geometric coefficient of variation)				
Day 1	14741.1 (± 13.9)	22800.2 (± 6.8)		
Day 3	23434.6 (± 14)	34995 (± 19.6)		
Day 7	26135.3 (± 14.1)	39627.7 (± 26.4)		

Statistical analyses

No statistical analyses for this end point

Primary: Minimum observed plasma concentration (Cmin) of JNJ-53718678

End point title	Minimum observed plasma concentration (Cmin) of JNJ-

	53718678[3]

End point description:

The Cmin was the minimum observed plasma concentration. PK Analysis population included all randomized subjects who have received at least one dose of study medication (JNJ-53718678), all subjects with available PK data were evaluated for PK parameters. Here, 99999 signifies that Geometric Coefficient of variation was not estimable' due to number of subjects. The population PK model simulated data are reported for this end point.

End point type	Primary

End point timeframe:

Days 1, 3 and 7

Notes:

[3] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: Descriptive statistical analysis was performed for this endpoint.

End point values	Part 1: Cohort 1a	Part 1: Cohort 1b	Part 1: Cohort 1c	Part 1: Cohort 1d
Subject group type	Subject analysis set	Subject analysis set	Subject analysis set	Subject analysis set
Number of subjects analysed	4	4	4	4
Units: ng/mL				
geometric mean (geometric coefficient of variation)				
Day 1	81.4 (± 58.8)	155.5 (± 89.3)	244.1 (± 90.4)	333.2 (± 62.3)
Day 3	110.8 (± 73.6)	222.2 (± 67.3)	320.9 (± 94.1)	534 (± 72.2)
Day 7	114 (± 77.7)	225.7 (± 66.5)	323.9 (± 95.7)	615.9 (± 75.2)

End point values	Part 1: Cohort 2a	Part 1: Cohort 2b	Part 1: Cohort 2c	Part 1: Cohort 3a
Subject group type	Subject analysis set	Subject analysis set	Subject analysis set	Subject analysis set
Number of subjects analysed	4	4	1	4
Units: ng/mL				
geometric mean (geometric coefficient of variation)				
Day 1	88.3 (± 39.2)	319.8 (± 16.9)	428.6 (± 99999)	72.6 (± 41.1)
Day 3	121.8 (± 46.9)	442.7 (± 19.7)	586.2 (± 99999)	103.9 (± 47.4)
Day 7	124 (± 49.1)	363 (± 18.9)	517.3 (± 99999)	100.9 (± 46.3)

End point values	Part 1: Cohort 3b	Part 1: Cohort 3c		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	4	4		
Units: ng/mL				
geometric mean (geometric coefficient of variation)				
Day 1	342.9 (± 14.3)	458.7 (± 54.9)		
Day 3	586.6 (± 15.5)	810.7 (± 60.1)		
Day 7	650.2 (± 15.5)	929 (± 62.1)		

Statistical analyses

No statistical analyses for this end point

Primary: Number of Subjects with Adverse Events

End point title	Number of Subjects with Adverse Events[4]

End point description:

An adverse event was any untoward medical event that occurs in a subject administered an investigational product, and it does not necessarily indicate only events with clear causal relationship with the relevant investigational product. The safety analysis set included all subjects who received any dose of JNJ-53718678 or placebo. Subjects in the safety analysis set were categorized by actual treatment received, irrespective of the randomization assignment.

End point type	Primary

End point timeframe:

Up to Day 28

Notes:

[4] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: Descriptive statistical analysis was performed for this endpoint.

End point values	JNJ-53718678 Low dose	JNJ-53718678 Mid dose	JNJ-53718678 Cohort 1c	JNJ-53718678 High dose
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	12	12	4	9
Units: Subjects	9	10	2	7

End point values	Placebo			
Subject group type	Reporting group			
Number of subjects analysed	7			
Units: Subjects	6			

Statistical analyses

No statistical analyses for this end point

Secondary: Viral Load Area Under the Curve (VL AUC) from Baseline to Day 14

End point title	Viral Load Area Under the Curve (VL AUC) from Baseline to Day 14

End point description:

Viral load was determined by quantitative real-time reverse transcriptase-polymerase chain reaction (qRT-PCR) assay of nasal swabs. The VL AUC was calculated based on the trapezoidal method. Subjects in the "as treated-infected" analysis set included all randomized subjects who have received at least one dose of JNJ-53718678 and who were PCR positive at baseline for respiratory syncytial virus ribonucleic

acid (RSV RNA). Subjects in this analysis population were categorized by actual treatment received, irrespective of the randomization assignment.

End point type	Secondary

End point timeframe:

Baseline to Day 3, Day 7 and Day 14

End point values	JNJ-53718678 Low dose	JNJ-53718678 Mid dose	JNJ-53718678 Cohort 1c	JNJ-53718678 High dose
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	12	12	4	9
Units: Log10copies.hour per milliliter				
median (full range (min-max))				
Baseline to Day 3	165.54 (25.68 to 265.68)	196.5 (87.36 to 361.56)	165.42 (99.48 to 305.28)	219.48 (149.16 to 262.32)
Baseline to Day 7	304.44 (25.68 to 472.8)	353.46 (144.24 to 874.56)	467.88 (317.04 to 710.76)	370.44 (225.84 to 590.64)
Baseline to Day 14	398.76 (120.24 to 897.24)	353.46 (144.24 to 1626.36)	818.58 (496.8 to 980.4)	522 (225.84 to 902.28)

End point values	Placebo			
Subject group type	Reporting group			
Number of subjects analysed	7			
Units: Log10copies.hour per milliliter				
median (full range (min-max))				
Baseline to Day 3	231.36 (134.52 to 277.92)			
Baseline to Day 7	417.84 (224.28 to 712.2)			
Baseline to Day 14	519.96 (224.28 to 1622.76)			

Statistical analyses

No statistical analyses for this end point

Secondary: Change from Baseline Viral Load

End point title	Change from Baseline Viral Load

End point description:

Viral load was assessed at each assessment time point where a nasal sample was obtained. Subjects in the "as treated-infected" analysis set included all randomized subjects who have received at least one dose of JNJ-53718678 and who were PCR positive at baseline for RSV RNA. Subjects in this analysis population were categorized by actual treatment received, irrespective of the randomization assignment. Here, 'n'(number of subjects analyzed) signifies that the number of subjects evaluable for a specific time

point. Here, 99999 signifies that LS mean and CI was not estimable' due to zero number of subjects.

End point type	Secondary

End point timeframe:

Up to Day 28

End point values	JNJ-53718678 Low dose	JNJ-53718678 Mid dose	JNJ-53718678 Cohort 1c	JNJ-53718678 High dose
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	12	12	4	9
Units: Log10copies/ml				
least squares mean (confidence interval 90%)				
Day 2	-1.66 (-2.32 to -0.99)	-1.15 (-1.81 to -0.49)	-1.71 (-2.85 to -0.56)	-1.42 (-2.21 to -0.63)
Day 3	-2.56 (-3.17 to -1.95)	-1.24 (-1.85 to -0.64)	-1.56 (-2.62 to -0.51)	-2.24 (-2.97 to -1.51)
Day 4	-2.76 (-3.83 to -1.7)	-2.39 (-3.52 to -1.26)	-0.58 (-2.85 to 1.7)	-3.4 (-4.63 to -2.17)
Day 5	-4.27 (-5.42 to -3.12)	-3.02 (-4.9 to -1.14)	-2.32 (-5.67 to 1.03)	-3.06 (-4.99 to -1.13)
Day 6	-3.82 (-5.47 to -2.17)	-5.8 (-10.29 to -1.3)	99999 (99999 to 99999)	-2.76 (-4.87 to -0.64)
Day 7	-4.41 (-5.16 to -3.66)	-4.14 (-4.89 to -3.4)	-2.6 (-3.89 to -1.31)	-3.96 (-4.85 to -3.06)
Day 14	-3.96 (-4.83 to -3.09)	-4.25 (-5.11 to -3.39)	-4.15 (-5.64 to -2.66)	-5.4 (-6.43 to -4.37)
Day 28	-5.1 (-5.39 to -4.81)	-5.1 (-5.39 to -4.81)	-4.38 (-4.88 to -3.88)	-4.77 (-5.11 to -4.42)

End point values	Placebo			
Subject group type	Reporting group			
Number of subjects analysed	7			
Units: Log10copies/ml				
least squares mean (confidence interval 90%)				
Day 2	-0.12 (-1 to 0.75)			
Day 3	-0.33 (-1.14 to 0.48)			
Day 4	-1.26 (-2.6 to 0.08)			
Day 5	-2.72 (-4.49 to -0.96)			
Day 6	-4.02 (-5.93 to -2.1)			
Day 7	-4.3 (-5.29 to -3.31)			
Day 14	-3.61 (-4.76 to -2.47)			
Day 28	-5.1 (-5.49 to -4.72)			

Statistical analyses

No statistical analyses for this end point

Secondary: Peak Viral Load

End point title	Peak Viral Load

End point description:

Peak viral load was defined as maximum viral load value (in copies/ml), based on the qRT-PCR values throughout the study.Subjects in the "as treated-infected" analysis set included all randomized subjects who have received at least one dose of JNJ-53718678 and who were PCR positive at baseline for RSV RNA. Subjects in this analysis population were categorized by actual treatment received, irrespective of the randomization assignment.

End point type	Secondary

End point timeframe:

Up to Day 28

End point values	JNJ-53718678 Low dose	JNJ-53718678 Mid dose	JNJ-53718678 Cohort 1c	JNJ-53718678 High dose
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	12	12	4	9
Units: Log10copies/ml				
median (full range (min-max))	5.29 (3.35 to 7.96)	6.81 (4.06 to 9.22)	6.545 (3.35 to 7.84)	6.23 (5.26 to 7.24)

End point values	Placebo			
Subject group type	Reporting group			
Number of subjects analysed	7			
Units: Log10copies/ml				
median (full range (min-max))	6.14 (5.04 to 7.35)			

Statistical analyses

No statistical analyses for this end point

Secondary: Time To Peak Viral Load

End point title	Time To Peak Viral Load

End point description:

Time (hours) to peak viral load was defined as time in hours, up to the time at which the peak value is

observed, in case identical peak values are identified at more than one time point, the first peak will be used. Subjects in the "as treated-infected" analysis set included all randomized subjects who have received at least one dose of JNJ-53718678 and who were PCR positive at baseline for RSV RNA. Subjects in this analysis population were categorized by actual treatment received, irrespective of the randomization assignment. Here, N (number of subjects analyzed) signifies number of subjects evaluable for this endpoint.

End point type	Secondary

End point timeframe:

Up to Day 28

End point values	JNJ-53718678 Low dose	JNJ-53718678 Mid dose	JNJ-53718678 Cohort 1c	JNJ-53718678 High dose
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	12	12	4	7
Units: hours				
median (full range (min-max))	0 (0 to 351.3)	0 (0 to 0)	0 (0 to 0)	0 (0 to 20.4)

End point values	Placebo			
Subject group type	Reporting group			
Number of subjects analysed	7			
Units: hours				
median (full range (min-max))	0 (0 to 110.3)			

Statistical analyses

No statistical analyses for this end point

Secondary: Time to Non-Detectability

End point title	Time to Non-Detectability

End point description:

Time to non-detectability was defined as the relative time in hours from the first dose of study drug until the first post dosing time point when the viral load reaches non-detectability in two consecutive nasal swabs. Subjects whose viral load does not reach non-detectability will be censored at their last measurement. Time to non-detectability is not defined if a subject does not have any post dosing viral load result. Subjects in the "as treated-infected" analysis set included all randomized subjects who have received at least one dose of JNJ-53718678 and who were PCR positive at baseline for RSV RNA. Subjects in this analysis population were categorized by actual treatment received, irrespective of the randomization assignment.

End point type	Secondary

End point timeframe:

Up to Day 28

End point values	JNJ-53718678 Low dose	JNJ-53718678 Mid dose	JNJ-53718678 Cohort 1c	JNJ-53718678 High dose
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	12	12	4	9
Units: hours				
median (full range (min-max))	109.95 (25.8 to 674.1)	143.8 (42.5 to 676.1)	495 (311.4 to 646.5)	146.2 (72 to 671.5)

End point values	Placebo			
Subject group type	Reporting group			
Number of subjects analysed	7			
Units: hours				
median (full range (min-max))	146.2 (71.6 to 649.6)			

Statistical analyses

No statistical analyses for this end point

Secondary: Length of Hospital Stay

End point title	Length of Hospital Stay

End point description:

Length of hospital stay was defined as the total number of hospitalization days due to RSV disease-related signs and symptoms from admission to discharge. Subjects in the "as treated-infected" analysis set included all randomized subjects who have received at least one dose of JNJ-53718678 and who were PCR positive at baseline for RSV RNA. Subjects in this analysis population were categorized by actual treatment received, irrespective of the randomization assignment.

End point type	Secondary

End point timeframe:

Up to Day 28

End point values	JNJ-53718678 Low dose	JNJ-53718678 Mid dose	JNJ-53718678 Cohort 1c	JNJ-53718678 High dose
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	12	12	4	9
Units: Days				
median (full range (min-max))	4.15 (2.01 to 6.24)	3.02 (2.02 to 6.1)	2.77 (1.95 to 4)	3.26 (2.06 to 6.27)

End point values	Placebo			
Subject group type	Reporting group			
Number of subjects analysed	7			
Units: Days				

median (full range (min-max))	3.23 (2.3 to 6.02)			

Statistical analyses

No statistical analyses for this end point

Secondary: Time to Clinical Stability

End point title	Time to Clinical Stability

End point description:

Maximum (time to normalized heart rate [clinician]), time to normalized respiratory rate (clinician), time to end of supplemental oxygen, time to end of supplemental feeding (clinician) If time to normalized heart rate or time to normalized respiratory rate was censored, than time to clinical stability was censored as well.

End point type	Secondary

End point timeframe:

Up to Day 28

End point values	JNJ-53718678 Low dose	JNJ-53718678 Mid dose	JNJ-53718678 Cohort 1c	JNJ-53718678 High dose
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	12	12	4	9
Units: hours				
median (full range (min-max))	67.3 (0 to 123.5)	34 (0 to 118.8)	21.25 (0 to 46.3)	49.6 (30.5 to 96.2)

End point values	Placebo			
Subject group type	Reporting group			
Number of subjects analysed	7			
Units: hours				
median (full range (min-max))	56.7 (24.5 to 121.1)			

Statistical analyses

No statistical analyses for this end point

Secondary: Time to end of Supplemental Oxygen

End point title	Time to end of Supplemental Oxygen

End point description:

Number of hours from first dose till last date/time of supplemental oxygen. Subjects who completed or withdrawn from the study prior to end of oxygen supplementation was censored at the date of

completion or withdrawal.Duration of supplemental oxygen was defined as the total duration (hours) where Supplemental Oxygen requirement was reported. Subjects in the "as treated-infected" analysis set included all randomized subjects who have received at least one dose of JNJ-53718678 and who were PCR positive at baseline for RSV RNA. Subjects in this analysis population were categorized by actual treatment received, irrespective of the randomization assignment.

End point type	Secondary

End point timeframe:

Up to Day 28

End point values	JNJ-53718678 Low dose	JNJ-53718678 Mid dose	JNJ-53718678 Cohort 1c	JNJ-53718678 High dose
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	12	12	4	9
Units: hours				
median (full range (min-max))	45.2 (0 to 123.5)	30.8 (0 to 93.4)	16.4 (0 to 45.4)	30.5 (0 to 96.2)

End point values	Placebo			
Subject group type	Reporting group			
Number of subjects analysed	7			
Units: hours				
median (full range (min-max))	27.3 (0 to 121.1)			

Statistical analyses

No statistical analyses for this end point

Secondary: Time to Oxygen Saturation Greater Than (>) 92 Percent on Room Air

End point title	Time to Oxygen Saturation Greater Than (>) 92 Percent on Room Air

End point description:

Time to oxygen saturation > 92 % on room air was reported (after the last period of supplemental oxygen).The SpO2 % was assessed by the investigator during hospitalization. Subjects in the "as treated-infected" analysis set included all randomized subjects who have received at least one dose of JNJ-53718678 and who were PCR positive at baseline for RSV RNA. Subjects in this analysis population were categorized by actual treatment received, irrespective of the randomization assignment.

End point type	Secondary

End point timeframe:

Up to Day 28

End point values	JNJ-53718678 Low dose	JNJ-53718678 Mid dose	JNJ-53718678 Cohort 1c	JNJ-53718678 High dose
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	12	12	4	9
Units: hours				
median (full range (min-max))	47.45 (1.3 to 128.5)	36.35 (6 to 130)	27.6 (6.8 to 55.6)	47.4 (4.5 to 172.8)

End point values	Placebo			
Subject group type	Reporting group			
Number of subjects analysed	7			
Units: hours				
median (full range (min-max))	34.1 (8.2 to 125.8)			

Statistical analyses

No statistical analyses for this end point

Secondary: The Respiratory rate

End point title	The Respiratory rate

End point description:

The Respiratory rate (number of breaths per minute) was assessed by the investigator during hospitalization. Subjects in the "as treated infected" analysis set included all randomized subjects who have received at least one dose of JNJ-53718678 and who were PCR positive at baseline for RSV RNA. Subjects in this analysis population were categorized by actual treatment received, irrespective of the randomization assignment. Here, 99999 signifies that median and min-max was not estimable' due to zero number of subjects. Here, 'n' (number of subjects analyzed) signifies that the number of subjects evaluable for a specific time point.

End point type	Secondary

End point timeframe:

Up to Day 28

End point values	JNJ-53718678 Low dose	JNJ-53718678 Mid dose	JNJ-53718678 Cohort 1c	JNJ-53718678 High dose
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	12	12	4	9
Units: number of breaths per minute (brpm)				
median (full range (min-max))				
Day 1-Assessment 1 (n=12,12,4,9,7)	53.5 (38 to 72)	44 (33 to 51)	51 (36 to 56)	48 (28 to 64)
Day 1-Assessment 2 (n=12,9,4,7,6)	45 (30 to 62)	45 (31 to 60)	42 (37 to 51)	40 (24 to 52)
Day 2-Assessment 1 (n=12,12,4,9,7)	44 (33 to 86)	44 (27 to 60)	46 (42 to 60)	46 (28 to 60)
Day 2-Assessment 2 (n=12,11,4,6,7)	41 (34 to 60)	42 (27 to 54)	45 (38 to 60)	40 (36 to 48)
Day 3-Assessment 1 (n=12,12,4,9,7)	48 (26 to 60)	40 (26 to 65)	44 (38 to 56)	40 (28 to 48)
Day 3-Assessment 2 (n=10,11,3,7,6)	41.5 (28 to 60)	38 (24 to 60)	60 (40 to 60)	44 (30 to 52)
Day 4-Assessment 1 (n=9,8,2,7,5)	51 (35 to 60)	40 (28 to 50)	56 (56 to 56)	42 (20 to 62)

Day 4-Assessment 2 (n=8,4,1,2,3)	36 (32 to 57)	38 (32 to 45)	40 (40 to 40)	42 (40 to 44)
Day 5-Assessment 1 (n=8,3,1,3,3)	40.5 (35 to 60)	42 (36 to 48)	56 (56 to 56)	48 (30 to 56)
Day 5-Assessment 2 (n=5,1,0,1,3)	42 (35 to 56)	45 (45 to 45)	99999 (99999 to 99999)	40 (40 to 40)
Day 6-Assessment 1 (n=5,1,0,3,3)	44 (35 to 48)	40 (40 to 40)	99999 (99999 to 99999)	48 (31 to 48)
Day 6-Assessment 2 (n=5,1,0,2,2)	46 (37 to 60)	40 (40 to 40)	99999 (99999 to 99999)	43 (40 to 46)
Day 7-Assessment 1 (n=12,12,3,9,7)	38.5 (30 to 56)	38 (27 to 64)	38 (38 to 46)	38 (30 to 55)
Day 7-Assessment 2 (n=2,0,0,0,0)	35.5 (35 to 36)	99999 (99999 to 99999)	99999 (99999 to 99999)	99999 (99999 to 99999)
Day 14 (n=11,12,4,9,7)	40 (32 to 45)	33.5 (26 to 56)	40 (27 to 44)	36 (31 to 48)
Day 28 (n=12,12,4,9,7)	40 (30 to 48)	38 (30 to 52)	29.5 (27 to 31)	35 (28 to 50)

End point values	Placebo			
Subject group type	Reporting group			
Number of subjects analysed	7			
Units: number of breaths per minute (brpm)				
median (full range (min-max))				
Day 1-Assessment 1 (n=12,12,4,9,7)	47 (32 to 60)			
Day 1-Assessment 2 (n=12,9,4,7,6)	39 (27 to 51)			
Day 2-Assessment 1 (n=12,12,4,9,7)	45 (32 to 56)			
Day 2-Assessment 2 (n=12,11,4,6,7)	42 (35 to 56)			
Day 3-Assessment 1 (n=12,12,4,9,7)	40 (28 to 60)			
Day 3-Assessment 2 (n=10,11,3,7,6)	40 (30 to 64)			
Day 4-Assessment 1 (n=9,8,2,7,5)	44 (40 to 60)			
Day 4-Assessment 2 (n=8,4,1,2,3)	44 (34 to 45)			
Day 5-Assessment 1 (n=8,3,1,3,3)	30 (30 to 45)			
Day 5-Assessment 2 (n=5,1,0,1,3)	42 (33 to 48)			
Day 6-Assessment 1 (n=5,1,0,3,3)	45 (24 to 60)			
Day 6-Assessment 2 (n=5,1,0,2,2)	33 (30 to 36)			
Day 7-Assessment 1 (n=12,12,3,9,7)	36 (30 to 40)			
Day 7-Assessment 2 (n=2,0,0,0,0)	99999 (99999 to 99999)			
Day 14 (n=11,12,4,9,7)	38 (30 to 60)			
Day 28 (n=12,12,4,9,7)	39 (30 to 52)			

Statistical analyses

No statistical analyses for this end point

Secondary: Body Temperature

End point title	Body Temperature

End point description:

The body temperature (degrees Celsius) was assessed by the investigator during hospitalization. Subjects in the "as treated infected" analysis set included all randomized subjects who have received at least one dose of JNJ-53718678 and who were PCR positive at baseline for RSV RNA. Subjects in this analysis population were categorized by actual treatment received, irrespective of the randomization

assignment. Here, 99999 signifies that median and min-max was not estimable' due to zero number of subjects. Here, 'n' (number of subjects analyzed) signifies that the number of subjects evaluable for a specific time point.

End point type	Secondary

End point timeframe:

Up to Day 28

End point values	JNJ-53718678 Low dose	JNJ-53718678 Mid dose	JNJ-53718678 Cohort 1c	JNJ-53718678 High dose
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	12	12	4	9
Units: Degree Celsius				
median (full range (min-max))				
Day 1-Assessment 1 (n=12,12,4,9,7)	36.5 (35.4 to 38.1)	36.55 (36 to 37.3)	36.35 (36 to 37.5)	37 (36 to 37.7)
Day 1-Assessment 2 (n=12,10,4,7,6)	36.6 (35.5 to 37.6)	36.55 (35.6 to 38)	36.25 (36.1 to 38.4)	36.5 (36 to 37.8)
Day 2-Assessment 1 (n=12,12,4,9,7)	36.6 (35.7 to 37.5)	36.85 (36 to 37.4)	36 (35.1 to 36)	36.5 (36 to 37.4)
Day 2-Assessment 2 (n=12,12,4,6,7)	36.45 (35.3 to 37.7)	36.75 (36.1 to 37.8)	36.1 (36 to 37)	36.4 (36 to 36.6)
Day 3-Assessment 1 (n=12,12,4,9,7)	36.5 (35.5 to 36.8)	36.75 (36 to 37.2)	36.05 (36 to 36.4)	36.5 (36 to 37.2)
Day 3-Assessment 2 (n=10,12,3,7,6)	36.35 (35.3 to 36.8)	36.6 (36.1 to 37.2)	36.3 (36.3 to 36.4)	36.4 (36 to 37.2)
Day 4-Assessment 1 (n=9,8,2,7,5,)	36.5 (36 to 36.9)	36.65 (36 to 37.5)	36.05 (35.8 to 36.3)	36.5 (36 to 37.3)
Day 4-Assessment 2 (n=6,4,1,2,3)	36.55 (36.2 to 37.1)	36.4 (35.9 to 36.7)	36.4 (36.4 to 36.4)	36.65 (36 to 37.3)
Day 5-Assessment 1 (n=8,3,1,3,3)	36.35 (35.8 to 36.9)	36.3 (36 to 36.6)	36.3 (36.3 to 36.3)	36.4 (36 to 37)
Day 5-Assessment 2 (n=5,1,0,2,2)	36.5 (36 to 37)	36.4 (36.4 to 36.4)	99999 (99999 to 99999)	36.3 (36 to 36.6)
Day 6-Assessment 1 (n=5,1,0,3,3)	36.6 (36.1 to 36.9)	36.2 (36.2 to 36.2)	99999 (99999 to 99999)	36.6 (36 to 37.2)
Day 6-Assessment 2 (n=5,1,0,2,2)	36.7 (35.3 to 36.9)	37.3 (37.3 to 37.3)	99999 (99999 to 99999)	36.65 (36.2 to 37.1)
Day 7-Assessment 1 (n=12,12,4,9,6)	36.55 (35.3 to 37.1)	36.5 (35.6 to 37.5)	36.05 (35.6 to 36.7)	36.7 (36 to 37.3)
Day 7-Assessment 2 (n=2,0,0,0,0)	36.45 (36.4 to 36.5)	99999 (99999 to 99999)	99999 (99999 to 99999)	99999 (99999 to 99999)
Day 14 (n=12,12,4,9,7)	36.45 (35.8 to 37.1)	36.6 (35.9 to 37.3)	36.25 (35.9 to 36.8)	36.6 (36 to 37.6)
Day 28 (n=12,12,4,9,7)	36.35 (36 to 37.2)	36.25 (35.1 to 37.3)	36.2 (36 to 36.8)	36.4 (35.8 to 37.6)

End point values	Placebo			
Subject group type	Reporting group			
Number of subjects analysed	7			
Units: Degree Celsius				
median (full range (min-max))				

Day 1-Assessment 1 (n=12,12,4,9,7)	36.5 (36.2 to 37)			
Day 1-Assessment 2 (n=12,10,4,7,6)	36.6 (36.2 to 37.2)			
Day 2-Assessment 1 (n=12,12,4,9,7)	36.4 (35.9 to 37.2)			
Day 2-Assessment 2 (n=12,12,4,6,7)	36.6 (35.9 to 38)			
Day 3-Assessment 1 (n=12,12,4,9,7)	36.7 (36 to 36.9)			
Day 3-Assessment 2 (n=10,12,3,7,6)	36.65 (36.2 to 36.9)			
Day 4-Assessment 1 (n=9,8,2,7,5,)	36.9 (36 to 37.3)			
Day 4-Assessment 2 (n=6,4,1,2,3)	37 (36.8 to 37.2)			
Day 5-Assessment 1 (n=8,3,1,3,3)	36.7 (36.3 to 36.7)			
Day 5-Assessment 2 (n=5,1,0,2,2)	36.7 (36.6 to 36.8)			
Day 6-Assessment 1 (n=5,1,0,3,3)	36.2 (35.9 to 36.4)			
Day 6-Assessment 2 (n=5,1,0,2,2)	36.3 (36.3 to 36.3)			
Day 7-Assessment 1 (n=12,12,4,9,6)	36.4 (36 to 37)			
Day 7-Assessment 2 (n=2,0,0,0,0)	99999 (99999 to 99999)			
Day 14 (n=12,12,4,9,7)	36.4 (36.1 to 38)			
Day 28 (n=12,12,4,9,7)	36.4 (36.2 to 36.7)			

Statistical analyses

No statistical analyses for this end point

Secondary: End of Supplemental Feeding - Clinician

End point title	End of Supplemental Feeding - Clinician

End point description:

Number of hours from first dose till last date/time point of supplemental feeding (based on the clinician COA/bid) where supplemental feeding was given via ‘nasogastric tube’ and/or ‘intravenous’ and answered the question: How is the patient feeding in the past 12 hours? from below options; Breast, bottle, or spoon/fork feeding or self-feeding ; Nasogastric tube; Intravenous and Patient did not feed during past 12 hours. Subjects in the "as treated-infected" analysis set included all randomized subjects who have received at least one dose of JNJ-53718678 and who were PCR positive at baseline for RSV RNA. Subjects in this analysis population were categorized by actual treatment received, irrespective of the randomization assignment

End point type	Secondary

End point timeframe:

Up to Day 28

End point values	JNJ-53718678 Low dose	JNJ-53718678 Mid dose	JNJ-53718678 Cohort 1c	JNJ-53718678 High dose
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	12	12	4	9
Units: hours				
median (full range (min-max))	0 (0 to 18)	0 (0 to 53)	0 (0 to 46.3)	0 (0 to 71.8)

End point values	Placebo			
Subject group type	Reporting group			
Number of subjects analysed	7			
Units: hours				
median (full range (min-max))	0 (0 to 56.7)			

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

All adverse events were reported up to Day 28

Assessment type	Non-systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	19.0

Reporting groups

Reporting group title	JNJ-53718678 Low dose

Reporting group description:

Subjects received JNJ 53718678 2 milligram per kilogram (mg/kg), 1.5 mg/kg and 1mg/kg once daily (qd) oral solution on Day 1 to Day 7 in Cohorts 1a ,2a and 3a respectively for each age group in part 1.

Reporting group title	JNJ-53718678 Mid dose

Reporting group description:

Subjects received JNJ 53718678 6mg/kg, 4.5 mg/kg and 3mg/kg qd oral solution on Day 1 to Day 7 in Cohorts 1b ,2b and 3b respectively for each age group in part 1.

Reporting group title	JNJ-53718678 Cohort 1c

Reporting group description:

Subjects received JNJ 53718678 8mg/kg qd oral solution on Day 1 to Day 7 in Cohort 1c in age group of greater than or equal (>=) to 6 months and less than or equal (<=) to 24 months of in part 1 .

Reporting group title	JNJ-53718678 High dose

Reporting group description:

Subjects received JNJ 53718678 9mg/kg, 6 mg/kg and 5mg/kg qd oral solution on Day 1 to Day 7 in Cohorts 1d ,2c and 3c respectively for each age group in part 1.

Reporting group title	Placebo

Reporting group description:

Subjects received matched JNJ 53718678 Placebo qd oral solution on Day 1 to Day 7 in all cohorts of Part 1.

Serious adverse events	JNJ-53718678 Low dose	JNJ-53718678 Mid dose	JNJ-53718678 Cohort 1c
Total subjects affected by serious adverse events			
subjects affected / exposed	1 / 12 (8.33%)	1 / 12 (8.33%)	0 / 4 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events			
Infections and infestations			
Bronchiolitis			
subjects affected / exposed	0 / 12 (0.00%)	1 / 12 (8.33%)	0 / 4 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pneumonia			

subjects affected / exposed	0 / 12 (0.00%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Rhinitis			
subjects affected / exposed	1 / 12 (8.33%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Serious adverse events	JNJ-53718678 High dose	Placebo	
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 9 (0.00%)	2 / 7 (28.57%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events			
Infections and infestations			
Bronchiolitis			
subjects affected / exposed	0 / 9 (0.00%)	1 / 7 (14.29%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Pneumonia			
subjects affected / exposed	0 / 9 (0.00%)	1 / 7 (14.29%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Rhinitis			
subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	

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

Non-serious adverse events	JNJ-53718678 Low dose	JNJ-53718678 Mid dose	JNJ-53718678 Cohort 1c
Total subjects affected by non-serious adverse events			
subjects affected / exposed	8 / 12 (66.67%)	10 / 12 (83.33%)	2 / 4 (50.00%)
Investigations			
QRS Axis Abnormal			

subjects affected / exposed	0 / 12 (0.00%)	1 / 12 (8.33%)	0 / 4 (0.00%)
occurrences (all)	0	1	0
Injury, poisoning and procedural complications			
Head Injury			
subjects affected / exposed	0 / 12 (0.00%)	1 / 12 (8.33%)	0 / 4 (0.00%)
occurrences (all)	0	1	0
Vascular disorders			
Haematoma			
subjects affected / exposed	0 / 12 (0.00%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Cardiac disorders			
Tachycardia			
subjects affected / exposed	0 / 12 (0.00%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Blood and lymphatic system disorders			
Anaemia			
subjects affected / exposed	1 / 12 (8.33%)	1 / 12 (8.33%)	0 / 4 (0.00%)
occurrences (all)	2	1	0
Iron Deficiency Anaemia			
subjects affected / exposed	0 / 12 (0.00%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Leukocytosis			
subjects affected / exposed	1 / 12 (8.33%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	2	0	0
Lymphadenopathy			
subjects affected / exposed	0 / 12 (0.00%)	1 / 12 (8.33%)	0 / 4 (0.00%)
occurrences (all)	0	1	0
Thrombocytosis			
subjects affected / exposed	0 / 12 (0.00%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
General disorders and administration site conditions			
Malaise			
subjects affected / exposed	1 / 12 (8.33%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	1	0	0
Pyrexia			

subjects affected / exposed	1 / 12 (8.33%)	1 / 12 (8.33%)	0 / 4 (0.00%)
occurrences (all)	1	1	0
Eye disorders			
Dacryostenosis Acquired			
subjects affected / exposed	0 / 12 (0.00%)	1 / 12 (8.33%)	0 / 4 (0.00%)
occurrences (all)	0	1	0
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	0 / 12 (0.00%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Faeces Soft			
subjects affected / exposed	2 / 12 (16.67%)	3 / 12 (25.00%)	2 / 4 (50.00%)
occurrences (all)	3	9	3
Lip Discolouration			
subjects affected / exposed	1 / 12 (8.33%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	3	0	0
Teething			
subjects affected / exposed	1 / 12 (8.33%)	1 / 12 (8.33%)	0 / 4 (0.00%)
occurrences (all)	1	1	0
Vomiting			
subjects affected / exposed	0 / 12 (0.00%)	3 / 12 (25.00%)	2 / 4 (50.00%)
occurrences (all)	0	6	2
Respiratory, thoracic and mediastinal disorders			
Catarrh			
subjects affected / exposed	1 / 12 (8.33%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	1	0	0
Cough			
subjects affected / exposed	1 / 12 (8.33%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	1	0	0
Nasal Obstruction			
subjects affected / exposed	0 / 12 (0.00%)	2 / 12 (16.67%)	0 / 4 (0.00%)
occurrences (all)	0	2	0
Pharyngeal Erythema			
subjects affected / exposed	0 / 12 (0.00%)	1 / 12 (8.33%)	0 / 4 (0.00%)
occurrences (all)	0	1	0
Respiratory Symptom			

subjects affected / exposed	0 / 12 (0.00%)	1 / 12 (8.33%)	0 / 4 (0.00%)
occurrences (all)	0	1	0
Wheezing			
subjects affected / exposed	1 / 12 (8.33%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	1	0	0
Skin and subcutaneous tissue disorders			
Dermatitis Diaper			
subjects affected / exposed	1 / 12 (8.33%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	1	0	0
Dry Skin			
subjects affected / exposed	1 / 12 (8.33%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	1	0	0
Eczema			
subjects affected / exposed	0 / 12 (0.00%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Erythema			
subjects affected / exposed	0 / 12 (0.00%)	1 / 12 (8.33%)	0 / 4 (0.00%)
occurrences (all)	0	1	0
Infections and infestations			
Bronchiolitis			
subjects affected / exposed	0 / 12 (0.00%)	1 / 12 (8.33%)	0 / 4 (0.00%)
occurrences (all)	0	1	0
Bronchitis			
subjects affected / exposed	1 / 12 (8.33%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	2	0	0
Conjunctivitis			
subjects affected / exposed	0 / 12 (0.00%)	2 / 12 (16.67%)	0 / 4 (0.00%)
occurrences (all)	0	2	0
Ear Infection			
subjects affected / exposed	1 / 12 (8.33%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	1	0	0
Genital Candidiasis			
subjects affected / exposed	0 / 12 (0.00%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Lower Respiratory Tract Infection Bacterial			

subjects affected / exposed	0 / 12 (0.00%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Nasopharyngitis			
subjects affected / exposed	1 / 12 (8.33%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	1	0	0
Oral Candidiasis			
subjects affected / exposed	0 / 12 (0.00%)	1 / 12 (8.33%)	0 / 4 (0.00%)
occurrences (all)	0	1	0
Otitis Media Acute			
subjects affected / exposed	0 / 12 (0.00%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Pneumonia Bacterial			
subjects affected / exposed	1 / 12 (8.33%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	2	0	0
Respiratory Tract Infection Bacterial			
subjects affected / exposed	0 / 12 (0.00%)	0 / 12 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Upper Respiratory Tract Infection			
subjects affected / exposed	1 / 12 (8.33%)	4 / 12 (33.33%)	0 / 4 (0.00%)
occurrences (all)	1	4	0

Non-serious adverse events	JNJ-53718678 High dose	Placebo	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	7 / 9 (77.78%)	6 / 7 (85.71%)	
Investigations			
QRS Axis Abnormal			
subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences (all)	0	0	
Injury, poisoning and procedural complications			
Head Injury			
subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences (all)	0	0	
Vascular disorders			
Haematoma			
subjects affected / exposed	1 / 9 (11.11%)	0 / 7 (0.00%)	
occurrences (all)	1	0	

Cardiac disorders			
Tachycardia			
subjects affected / exposed	0 / 9 (0.00%)	1 / 7 (14.29%)	
occurrences (all)	0	2	
Blood and lymphatic system disorders			
Anaemia			
subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences (all)	0	0	
Iron Deficiency Anaemia			
subjects affected / exposed	0 / 9 (0.00%)	1 / 7 (14.29%)	
occurrences (all)	0	1	
Leukocytosis			
subjects affected / exposed	2 / 9 (22.22%)	1 / 7 (14.29%)	
occurrences (all)	3	1	
Lymphadenopathy			
subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences (all)	0	0	
Thrombocytosis			
subjects affected / exposed	0 / 9 (0.00%)	1 / 7 (14.29%)	
occurrences (all)	0	1	
General disorders and administration site conditions			
Malaise			
subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences (all)	0	0	
Pyrexia			
subjects affected / exposed	1 / 9 (11.11%)	0 / 7 (0.00%)	
occurrences (all)	1	0	
Eye disorders			
Dacryostenosis Acquired			
subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences (all)	0	0	
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	1 / 9 (11.11%)	2 / 7 (28.57%)	
occurrences (all)	4	2	
Faeces Soft			

subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences (all)	0	0	
Lip Discolouration			
subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences (all)	0	0	
Teething			
subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences (all)	0	0	
Vomiting			
subjects affected / exposed	4 / 9 (44.44%)	4 / 7 (57.14%)	
occurrences (all)	7	6	
Respiratory, thoracic and mediastinal disorders			
Catarrh			
subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences (all)	0	0	
Cough			
subjects affected / exposed	0 / 9 (0.00%)	1 / 7 (14.29%)	
occurrences (all)	0	1	
Nasal Obstruction			
subjects affected / exposed	0 / 9 (0.00%)	1 / 7 (14.29%)	
occurrences (all)	0	1	
Pharyngeal Erythema			
subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences (all)	0	0	
Respiratory Symptom			
subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences (all)	0	0	
Wheezing			
subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences (all)	0	0	
Skin and subcutaneous tissue disorders			
Dermatitis Diaper			
subjects affected / exposed	0 / 9 (0.00%)	1 / 7 (14.29%)	
occurrences (all)	0	2	
Dry Skin			

subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences (all)	0	0	
Eczema			
subjects affected / exposed	1 / 9 (11.11%)	0 / 7 (0.00%)	
occurrences (all)	1	0	
Erythema			
subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences (all)	0	0	
Infections and infestations			
Bronchiolitis			
subjects affected / exposed	1 / 9 (11.11%)	2 / 7 (28.57%)	
occurrences (all)	1	2	
Bronchitis			
subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences (all)	0	0	
Conjunctivitis			
subjects affected / exposed	1 / 9 (11.11%)	0 / 7 (0.00%)	
occurrences (all)	1	0	
Ear Infection			
subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences (all)	0	0	
Genital Candidiasis			
subjects affected / exposed	1 / 9 (11.11%)	0 / 7 (0.00%)	
occurrences (all)	1	0	
Lower Respiratory Tract Infection Bacterial			
subjects affected / exposed	2 / 9 (22.22%)	0 / 7 (0.00%)	
occurrences (all)	3	0	
Nasopharyngitis			
subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences (all)	0	0	
Oral Candidiasis			
subjects affected / exposed	1 / 9 (11.11%)	0 / 7 (0.00%)	
occurrences (all)	1	0	
Otitis Media Acute			

subjects affected / exposed	1 / 9 (11.11%)	0 / 7 (0.00%)	
occurrences (all)	1	0	
Pneumonia Bacterial			
subjects affected / exposed	0 / 9 (0.00%)	0 / 7 (0.00%)	
occurrences (all)	0	0	
Respiratory Tract Infection Bacterial			
subjects affected / exposed	0 / 9 (0.00%)	1 / 7 (14.29%)	
occurrences (all)	0	2	
Upper Respiratory Tract Infection			
subjects affected / exposed	3 / 9 (33.33%)	0 / 7 (0.00%)	
occurrences (all)	3	0	

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
23 November 2016	The overall reason for the amendment was to supplement the number of subjects in the study to better estimate the antiviral effects of JNJ-53718678 and its effects on the clinical course of respiratory syncytial virus (RSV), as included in the secondary objectives and endpoints. In relation to this, certain design elements of the study including but not limited to, frequency of assessments had been adapted. Establishing the antiviral effects of JNJ 53718678 and its effects on the clinical course of RSV will potentially expedite its development to serve an unmet clinical need.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? Yes

Date	Interruption	Restart date
10 November 2017	Study was put on hold in March 2017 and then terminated in Nov 2017.	-

Notes:

Limitations and caveats

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

In Part 2 only 1 subject (placebo) had enrolled at time of premature study termination, data of Part 1 and 2 placebo subjects was combined hence, viral load data was insufficient for an accurate evaluation of the antiviral effect of JNJ-53718678.

Notes: