Clinical trial results:
A Phase I/II Open Label Study in MPS IIIB Subjects to Investigate the Safety, Pharmacokinetics, and Pharmacodynamics/Efficacy of SBC-103 Administered Intravenously.

Summary

EudraCT number	2013-003400-39
Trial protocol	GB ES
Global end of trial date	16 October 2017

Results information

Result version number	v1 (current)
This version publication date	02 May 2018
First version publication date	02 May 2018

Trial information

Trial identification

Sponsor protocol code	NGLU-CL02

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT02324049
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Alexion Pharmaceuticals, Inc.
Sponsor organisation address	100 College Street, New Haven, United States, 06510
Public contact	European Clinical Trial Information, Alexion Europe SAS, +33 147100606, clinicaltrials.eu@alexion.com
Scientific contact	European Clinical Trial Information, Alexion Europe SAS, +33 147100606, clinicaltrials.eu@alexion.com

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	Yes
EMA paediatric investigation plan number(s)	EMEA-001653-PIP01-14
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	03 November 2017
Is this the analysis of the primary completion data?	Yes
Primary completion date	16 October 2017
Global end of trial reached?	Yes
Global end of trial date	16 October 2017
Was the trial ended prematurely?	Yes

Notes:

General information about the trial

Main objective of the trial:

To evaluate the safety and tolerability of the IV administration of SBC-103 in subjects with mucopolysaccharidosis III, type B (MPS IIIB, Sanfilippo B) with evaluable signs or symptoms of developmental delay.

Protection of trial subjects:

This study was conducted in accordance with International Conference on Harmonisation (ICH) Good Clinical Practice, and the principles of the Declaration of Helsinki, in addition to following the laws and regulations of the country or countries in which a study is conducted.

Background therapy:

No background therapy used for this study.

Evidence for comparator:

No comparator used.

Actual start date of recruitment	22 January 2015
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	Yes

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Spain: 1
Country: Number of subjects enrolled	United Kingdom: 2
Country: Number of subjects enrolled	United States: 8
Worldwide total number of subjects	11
EEA total number of subjects	3

Notes:

Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	11
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:

Pediatric MPS IIIB patients, aged ≥ 2 to < 12 years old, were eligible for the study.

Pre-assignment

Screening details:

A definitive diagnosis of MPS IIIB, as determined by either documented deficiency in NAGLU enzyme activity ≤10% of the mean value in normal individuals at Screening OR documented functionally-relevant mutations in both alleles of the NAGLU gene based on historical or Screening laboratory results.

Period 1

Period 1 title	Overall (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Not blinded

Blinding implementation details:

Not a blinded study.

Arms

Arm title	SBC-103

Arm description:

Part A (Initial therapy): Patients were enrolled in 1 of 3 different dosing cohorts (0.3, 1.0, or 3.0 mg/kg), with patients enrolling in the lowest dosage first. Dosing occurred every other week, [QOW] for 24 weeks, followed by a ≥ 4 week treatment break.

Part B: Dosing was escalated to the next higher dose that was considered safe (1.0 or 3.0 mg/kg QOW) for ≥ 8 weeks. Patients who received doses of 0.3 mg/kg in Part A were considered for a second dose escalation to 3.0 mg/kg at any time during Part B provided that they tolerated at least 2 doses of 1.0 mg/kg in Part B. Patients who received and tolerated at least 4 doses of SBC-103 QOW at 3.0 mg/kg were considered for participation in Part C.

Part C: Were randomized, open-label assessment of SBC-103 at doses of 5.0 or 10.0 mg/kg administered IV. Dosing in Part C began at the 5.0 mg/kg dose level. The decision to began dosing in the first patient at 10.0 mg/kg was based on review of safety data at 5.0 mg/kg.

Arm type	Experimental
Investigational medicinal product name	SBC-103
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for infusion
Routes of administration	Intravenous use

Dosage and administration details:

Intravenous SBC-103 (0.3, 1.0, 3.0, 5.0, 10.0 mg/kg).

Number of subjects in period 1	SBC-103
Started	11
Completed	11

Baseline characteristics

Reporting groups

Reporting group title	Overall

Reporting group description: -

Reporting group values	Overall	Total	
Number of subjects	11	11	
Age categorical Units: Subjects			
In utero	0	0	
Preterm newborn infants (gestational age < 37 wks)	0	0	
Newborns (0-27 days)	0	0	
Infants and toddlers (28 days-23 months)	0	0	
Children (2-11 years)	11	11	
Adolescents (12-17 years)	0	0	
Adults (18-64 years)	0	0	
From 65-84 years	0	0	
85 years and over	0	0	
Age continuous			
The overall age at study entry ranged from 25 to 123 months.			
Units: months			
arithmetic mean	72.6		
standard deviation	± 38.39	-	
Gender categorical Units: Subjects			
Female	4	4	
Male	7	7	

Subject analysis sets

Subject analysis set title	Safety Analysis Set
Subject analysis set type	Safety analysis

Subject analysis set description:

The Safety Analysis Set, defined as all patients for whom informed consent had been obtained, who have a confirmed diagnosis of MPS IIIB, and who have received any amount of SBC-103, was used to summarize all safety and tolerability data.

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

Children (2-11 years)	11		
Adolescents (12-17 years)	0		
Adults (18-64 years)	0		
From 65-84 years	0		
85 years and over	0		
Age continuous			
The overall age at study entry ranged from 25 to 123 months.			
Units: months			
arithmetic mean	72.6		
standard deviation	± 38.39		
Gender categorical Units: Subjects			
Female	4		
Male	7		

End points

End points reporting groups

Reporting group title	SBC-103

Reporting group description:

Part A (Initial therapy): Patients were enrolled in 1 of 3 different dosing cohorts (0.3, 1.0, or 3.0 mg/kg), with patients enrolling in the lowest dosage first. Dosing occurred every other week, [QOW] for 24 weeks, followed by a ≥ 4 week treatment break.

Part B: Dosing was escalated to the next higher dose that was considered safe (1.0 or 3.0 mg/kg QOW) for ≥ 8 weeks. Patients who received doses of 0.3 mg/kg in Part A were considered for a second dose escalation to 3.0 mg/kg at any time during Part B provided that they tolerated at least 2 doses of 1.0 mg/kg in Part B. Patients who received and tolerated at least 4 doses of SBC-103 QOW at 3.0 mg/kg were considered for participation in Part C.

Part C: Were randomized, open-label assessment of SBC-103 at doses of 5.0 or 10.0 mg/kg administered IV. Dosing in Part C began at the 5.0 mg/kg dose level. The decision to began dosing in the first patient at 10.0 mg/kg was based on review of safety data at 5.0 mg/kg.

Subject analysis set title	Safety Analysis Set
Subject analysis set type	Safety analysis

Subject analysis set description:

The Safety Analysis Set, defined as all patients for whom informed consent had been obtained, who have a confirmed diagnosis of MPS IIIB, and who have received any amount of SBC-103, was used to summarize all safety and tolerability data.

Primary: The primary objective of the study was to evaluate the safety and tolerability of intravenous (IV) administration of SBC-103 in subjectswith MPS III

End point title	The primary objective of the study was to evaluate the safety and tolerability of intravenous (IV) administration of SBC-103 in subjectswith MPS III[1]

End point description:

End point type	Primary

End point timeframe:

Baseline to 142 weeks

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: No statistical analyses have been specified for this primary endpoint.

End point values	SBC-103			
Subject group type	Reporting group			
Number of subjects analysed	11			
Units: patients	11			

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Baseline to week 142

Adverse event reporting additional description:

Baseline to 142 weeks.
The planned duration of treatment was approximately 164 weeks.
Due to early termination of Study NGLU-CL02, the actual study duration was 142weeks.

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	19

Reporting groups

Reporting group title	Overall Trial

Reporting group description:

11 patients enrolled across 4 clinical sites in 3 countries, 5 patients were randomly assigned to the SBC-103 5.0mg/kg – every other week (QOW) dose and 6 patients were assigned to the SBC-103 10.0 mg/kg – QOW dose. All 11 patients had completed Part A and Part B of the study.

Serious adverse events	Overall Trial		
Total subjects affected by serious adverse events			
subjects affected / exposed	3 / 11 (27.27%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		
Investigations			
Blood pressure increased			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences causally related to treatment / all	1 / 1		
deaths causally related to treatment / all	0 / 0		
Vascular disorders			
Flushing			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences causally related to treatment / all	3 / 3		
deaths causally related to treatment / all	0 / 0		
Cardiac disorders			
Cyanosis			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences causally related to treatment / all	1 / 1		
deaths causally related to treatment / all	0 / 0		
General disorders and administration			

site conditions			
Pyrexia			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Respiratory, thoracic and mediastinal disorders			
Hypoxia			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences causally related to treatment / all	1 / 1		
deaths causally related to treatment / all	0 / 0		
Skin and subcutaneous tissue disorders			
Urticaria			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences causally related to treatment / all	2 / 2		
deaths causally related to treatment / all	0 / 0		
Swelling face			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences causally related to treatment / all	1 / 1		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			
Bacteraemia			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences causally related to treatment / all	1 / 3		
deaths causally related to treatment / all	0 / 0		
Pneumonia			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences causally related to treatment / all	1 / 1		
deaths causally related to treatment / all	0 / 0		
Staphylococcal bacteraemia			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		

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

Non-serious adverse events	Overall Trial		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	11 / 11 (100.00%)		
Vascular disorders			
Flushing			
subjects affected / exposed	2 / 11 (18.18%)		
occurrences (all)	6		
Hyperaemia			
subjects affected / exposed	2 / 11 (18.18%)		
occurrences (all)	2		
Hypertension			
subjects affected / exposed	2 / 11 (18.18%)		
occurrences (all)	2		
General disorders and administration site conditions			
Pyrexia			
subjects affected / exposed	9 / 11 (81.82%)		
occurrences (all)	21		
Catheter site erythema			
subjects affected / exposed	2 / 11 (18.18%)		
occurrences (all)	2		
Catheter site rash			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Catheter site swelling			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Influenza like illness			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Local swelling			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Pain			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Respiratory, thoracic and mediastinal			

disorders			
Cough			
subjects affected / exposed	5 / 11 (45.45%)		
occurrences (all)	10		
Rhinorrhoea			
subjects affected / exposed	3 / 11 (27.27%)		
occurrences (all)	4		
Nasal congestion			
subjects affected / exposed	3 / 11 (27.27%)		
occurrences (all)	3		
Wheezing			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	3		
Nasal obstruction			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	2		
Asthma			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Bronchial secretion retention			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Oropharyngeal pain			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Psychiatric disorders			
Hypervigilance			
subjects affected / exposed	2 / 11 (18.18%)		
occurrences (all)	2		
Insomnia			
subjects affected / exposed	2 / 11 (18.18%)		
occurrences (all)	2		
Aggression			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Agitation			

subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Anxiety			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Product issues			
Device occlusion			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Investigations			
Cardiac murmur			
subjects affected / exposed	2 / 11 (18.18%)		
occurrences (all)	2		
Body temperature increased			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
CSF protein increased			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Electrocardiogram Q wave abnormal			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Liver palpable			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Mean platelet volume increased			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Oxygen saturation decreased			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Serum ferritin decreased			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Injury, poisoning and procedural complications			

Head injury subjects affected / exposed occurrences (all)	2 / 11 (18.18%) 3		
Fall subjects affected / exposed occurrences (all)	2 / 11 (18.18%) 2		
Infusion related reaction subjects affected / exposed occurrences (all)	1 / 11 (9.09%) 2		
Anaesthetic complication neurological subjects affected / exposed occurrences (all)	1 / 11 (9.09%) 1		
Contusion subjects affected / exposed occurrences (all)	1 / 11 (9.09%) 1		
Eye contusion subjects affected / exposed occurrences (all)	1 / 11 (9.09%) 1		
Eyelid injury subjects affected / exposed occurrences (all)	1 / 11 (9.09%) 1		
Foreign body subjects affected / exposed occurrences (all)	1 / 11 (9.09%) 1		
Lip injury subjects affected / exposed occurrences (all)	1 / 11 (9.09%) 1		
Mouth injury subjects affected / exposed occurrences (all)	1 / 11 (9.09%) 1		
Periorbital haemorrhage subjects affected / exposed occurrences (all)	1 / 11 (9.09%) 1		
Congenital, familial and genetic disorders			

Dysmorphism			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Cardiac disorders			
Left ventricular hypertrophy			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Sinus bradycardia			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Tachycardia			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Nervous system disorders			
Headache			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Hyperreflexia			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Hypertonia			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Lethargy			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Psychomotor hyperactivity			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Seizure			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Speech disorder			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Syncope			

subjects affected / exposed occurrences (all)	1 / 11 (9.09%) 1		
Blood and lymphatic system disorders Anaemia subjects affected / exposed occurrences (all) Lymphadenopathy subjects affected / exposed occurrences (all)	 2 / 11 (18.18%) 3 2 / 11 (18.18%) 2		
Ear and labyrinth disorders Deafness subjects affected / exposed occurrences (all) Ear pain subjects affected / exposed occurrences (all) Deafness bilateral subjects affected / exposed occurrences (all) Hypoacusis subjects affected / exposed occurrences (all) Middle ear effusion subjects affected / exposed occurrences (all)	 4 / 11 (36.36%) 4 2 / 11 (18.18%) 4 1 / 11 (9.09%) 1 1 / 11 (9.09%) 1 1 / 11 (9.09%) 1		
Eye disorders Mydriasis subjects affected / exposed occurrences (all) Eye swelling subjects affected / exposed occurrences (all) Ocular hyperaemia subjects affected / exposed occurrences (all)	 1 / 11 (9.09%) 2 1 / 11 (9.09%) 1 1 / 11 (9.09%) 1		
Gastrointestinal disorders			

Vomiting			
subjects affected / exposed	7 / 11 (63.64%)		
occurrences (all)	26		
Diarrhoea			
subjects affected / exposed	6 / 11 (54.55%)		
occurrences (all)	15		
Salivary hypersecretion			
subjects affected / exposed	2 / 11 (18.18%)		
occurrences (all)	2		
Constipation			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	2		
Breath odour			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Eructation			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Lip swelling			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Nausea			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Pancreatic enlargement			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Swollen tongue			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Skin and subcutaneous tissue disorders			
Rash			
subjects affected / exposed	4 / 11 (36.36%)		
occurrences (all)	6		
Dermatitis diaper			

subjects affected / exposed	4 / 11 (36.36%)			
occurrences (all)	4			
Erythema				
subjects affected / exposed	2 / 11 (18.18%)			
occurrences (all)	2			
Rash erythematous				
subjects affected / exposed	2 / 11 (18.18%)			
occurrences (all)	2			
Dermatitis allergic				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	1			
Dermatitis contact				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	1			
Dry skin				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	1			
Eczema				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	1			
Miliaria				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	1			
Seborrhoeic dermatitis				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	1			
Skin discolouration				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	1			
Skin plaque				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	1			
Swelling face				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	1			
Papule				

subjects affected / exposed occurrences (all)	1 / 11 (9.09%) 1		
Renal and urinary disorders Proteinuria subjects affected / exposed occurrences (all)	 2 / 11 (18.18%) 2		
Endocrine disorders Precocious puberty subjects affected / exposed occurrences (all)	 1 / 11 (9.09%) 1		
Musculoskeletal and connective tissue disorders Coccydynia subjects affected / exposed occurrences (all) Muscle mass subjects affected / exposed occurrences (all) Musculoskeletal pain subjects affected / exposed occurrences (all) Scoliosis subjects affected / exposed occurrences (all)	 1 / 11 (9.09%) 1 1 / 11 (9.09%) 1 1 / 11 (9.09%) 1 1 / 11 (9.09%) 1		
Infections and infestations Nasopharyngitis subjects affected / exposed occurrences (all) Upper respiratory tract infection subjects affected / exposed occurrences (all) Lower respiratory tract infection subjects affected / exposed occurrences (all) Rhinitis subjects affected / exposed occurrences (all)	 5 / 11 (45.45%) 16 4 / 11 (36.36%) 4 2 / 11 (18.18%) 6 2 / 11 (18.18%) 3		

Gastroenteritis viral				
subjects affected / exposed	2 / 11 (18.18%)			
occurrences (all)	2			
Ear infection				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	2			
Fungal skin infection				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	2			
Hordeolum				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	2			
Pharyngitis streptococcal				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	2			
Candida nappy rash				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	1			
Conjunctivitis				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	1			
Eye infection				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	1			
Eye infection bacterial				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	1			
Folliculitis				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	1			
Fungal infection				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	1			
Influenza				
subjects affected / exposed	1 / 11 (9.09%)			
occurrences (all)	1			

Localised infection			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Oral candidiasis			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Oral herpes			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Otitis externa			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Otitis media			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Paronychia			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Respiratory tract infection viral			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Rotavirus infection			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Tonsillitis			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Viral infection			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Metabolism and nutrition disorders			
Decreased appetite			
subjects affected / exposed	1 / 11 (9.09%)		
occurrences (all)	1		
Iron deficiency			

subjects affected / exposed occurrences (all)	1 / 11 (9.09%) 1		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
10 April 2014	Amendment #1 (10Apr2014): Revised inclusion/exclusion criteria for further clarification on assessment questionnaires, adjustments to blood samples obtained.
05 June 2014	Amendment # 2 (05Jun2014):Added clarification to the stopping rules and included language for patients to receive central line placement for general anesthesia for specified protocol assessments.
04 November 2014	Amendment #3 (04Nov2014): Changes to the study design include: removal of PET imaging, inclusion of additional nonclinical data to support data design, study drug administration regimen changed, and age range of patients changed.
26 December 2014	Amendment #4 (26Dec2014): Added additional safety monitoring measurements, revised the required quality of life assessments, clarification of the types of lab assessments required and added dose pausing rules.
15 February 2015	Amendment #5 (15Feb2015): Additional subject enrollment into a cohort-based upon screening, and refined the timing of multiple assessments.
11 December 2015	Amendment #6 (11Dec2015): Addition of Part C which included 2 additional doses.

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.

Study NGLU-CL02 was terminated early, as part of the early termination of the SBC-103 program. The Sponsor’s decision to terminate the SBC-103 program was reached after review of the data from all interventional clinical studies of SBC-103.

Notes: