Clinical trial results:
A Multicenter Study of the Efficacy, Tolerability, Safety, and Pharmacokinetics of Immune Globulin Subcutaneous (Human) IgPro20 in Subjects with Primary Immunodeficiency

Summary

EudraCT number	2006-006745-13
Trial protocol	DE GB FR ES SE IT PL
Global end of trial date	31 August 2009

Results information

Result version number	v1 (current)
This version publication date	13 July 2016
First version publication date	06 August 2015

Trial information

Trial identification

Sponsor protocol code	ZLB06_001CR

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT00542997
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	CSL Behring AG
Sponsor organisation address	Wankdorfstrasse 10, Bern 22, Switzerland, 3000
Public contact	Trial Registration Co-ordinator, CSL Behring, clinicaltrials@cslbehring.com
Scientific contact	Trial Registration Co-ordinator, CSL Behring, clinicaltrials@cslbehring.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?	Yes

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	14 October 2009
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	31 August 2009
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To assess the efficacy, tolerability, safety, and pharmacokinetics (PK) of IgPro20 in subjects with primary immunodeficiency (PID). As the primary objective, the IgPro20 dose should result in sustained immunoglobulin G (IgG) trough levels (Ctrough) comparable to the previous IgG treatment.

Protection of trial subjects:

This study was conducted in accordance with the International Conference on Harmonisation (ICH) Good Clinical Practice (GCP) guidelines, and standard operating procedures for clinical research and development at CSL Behring and the Clinical Research Organisations (CROs) involved. Compliance with these requirements also constitutes conformity with the ethical principles of the Declaration of Helsinki (version of 1996). The study was conducted under a protocol reviewed and approved by an IEC/IRB; the study was conducted by scientifically and medically qualified persons; the benefits of the study were in proportion to the risks; the rights and welfare of the subjects were respected; the physicians conducting the study did not find the hazards to outweigh the potential benefits; the results reported are accurate; and each subject or subject's parent or legal guardian gave his or her written informed consent before any protocol driven tests or evaluations were performed.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	28 September 2007
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	Romania: 10
Country: Number of subjects enrolled	Switzerland: 2
Country: Number of subjects enrolled	Poland: 8
Country: Number of subjects enrolled	Spain: 10
Country: Number of subjects enrolled	Sweden: 1
Country: Number of subjects enrolled	United Kingdom: 4
Country: Number of subjects enrolled	France: 2
Country: Number of subjects enrolled	Germany: 14
Worldwide total number of subjects	51
EEA total number of subjects	49

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)	18
Adolescents (12-17 years)	7
Adults (18-64 years)	26
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

This multinational study enrolled subjects at 15 of the participating study centers in Europe.

Pre-assignment

Screening details:

Screening took place 1 to 4 weeks prior to the first IgPro20 infusion.

Period 1

Period 1 title	Wash in / Wash out Period
Is this the baseline period?	Yes
Allocation method	Not applicable
Blinding used	Not blinded

Arms

Arm title	IgPro20

Arm description:

IgPro20 administered as a subcutaneous infusion at weekly intervals by the subject/parent/guardian.

Arm type	Experimental
Investigational medicinal product name	IgPro20
Investigational medicinal product code	
Other name	Human Normal Immunoglobulin for Subcutaneous Administration (IGSC), Hizentra, SCIG
Pharmaceutical forms	Solution for infusion
Routes of administration	Subcutaneous use

Dosage and administration details:

IgPro20 is a liquid formulation of normal human IgG at a concentration of 20% administered as a SC infusion at weekly intervals. The initial weekly dose was determined based on subjects' previous treatment. Dose adjustments could be performed during the wash-in/wash-out period at the discretion of the investigator.

Number of subjects in period 1	IgPro20
Started	51
Completed	46
Not completed	5
Consent withdrawn by subject	2
Adverse event, non-fatal	3

Period 2

Period 2 title	Efficacy Period
Is this the baseline period?	No
Allocation method	Not applicable
Blinding used	Not blinded

Arms

Arm title	IgPro20

Arm description:

IgPro20 administered as a subcutaneous infusion at weekly intervals by the subject/parent/guardian.

Arm type	Experimental
Investigational medicinal product name	IgPro20
Investigational medicinal product code	
Other name	Human Normal Immunoglobulin for Subcutaneous Administration (IGSC), Hizentra, SCIG
Pharmaceutical forms	Solution for infusion
Routes of administration	Subcutaneous use

Dosage and administration details:

IgPro20 is a liquid formulation of normal human IgG at a concentration of 20% administered as a SC infusion at weekly intervals. The initial weekly dose was determined based on subjects' previous treatment. Dose adjustments could be performed during the wash-in/wash-out period at the discretion of the investigator.

Number of subjects in period 2	IgPro20
Started	46
Completed	43
Not completed	3
Adverse event, non-fatal	3

Baseline characteristics

Reporting groups	
Reporting group title	IgPro20
Reporting group description:	
IgPro20 administered as a subcutaneous infusion at weekly intervals by the subject/parent/guardian.	

Reporting group values	IgPro20	Total	
Number of subjects	51	51	
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)	18	18	
Adolescents (12-17 years)	7	7	
Adults (18-64 years)	26	26	
From 65-84 years	0	0	
85 years and over	0	0	
Age continuous Units: years			
arithmetic mean	22.6		
standard deviation	± 16.02	-	
Gender categorical Units: Subjects			
Female	16	16	
Male	35	35	
Race Units: Subjects			
White	51	51	
Type of Primary Immunodeficiency Units: Subjects			
Common variable immunodeficiency (CVID)	30	30	
X-linked agammaglobulinemia (XLA)	20	20	
Autosomal recessive agammaglobulinemia (ARAG)	1	1	

End points

End points reporting groups

Reporting group title	IgPro20
Reporting group description:	
IgPro20 administered as a subcutaneous infusion at weekly intervals by the subject/parent/guardian.	
Reporting group title	IgPro20
Reporting group description:	
IgPro20 administered as a subcutaneous infusion at weekly intervals by the subject/parent/guardian.	
Subject analysis set title	IgPro20 (PK Substudy)
Subject analysis set type	Sub-group analysis
Subject analysis set description:	
Subjects enrolled and treated with subcutaneous infusion of IgPro20 participating in the pharmacokinetic sub-study.	

Primary: Total Serum IgG Trough Levels

End point title	Total Serum IgG Trough Levels[1]
End point description:	
Total IgG trough levels for IgPro20 treatment at steady state were compared with documented trough level data for IgG treatment received prior to enrolling in the study (pre-study data are from enrolled subjects with at least 3 documented IgG trough values ≥ 5 g/L during up to 6 months of intravenous (IGIV) or subcutaneous (IGSC) replacement therapy prior to receiving IgPro20 study treatment). For this purpose, 6 consecutive IgPro20 trough values (obtained prior to infusions 12 to 17) per subject were aggregated to the subject's median value and then median values across subjects were summarised using descriptive statistics. The same procedure was applied to pre-study treatment using the 3 most recent IgG trough values ≥ 5 g/L obtained prior to the first IgPro20 infusion. The intention-to-treat (ITT) population included all subjects treated with IgPro20 during the efficacy period (starting with Week 12); pre-study treatment IgG trough levels were not available for 2 subjects.	
End point type	Primary
End point timeframe:	
Up to 6 months prior to first IgPro20 treatment (Pre-study treatment) and Week 12 to 17 (Infusions 12 to 17)	
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: Variables were summarized using descriptive statistics.	

End point values	IgPro20			
Subject group type	Reporting group			
Number of subjects analysed	46[2]			
Units: g/L				
arithmetic mean (standard deviation)				
Pre-study, n = 44	7.49 (± 1.57)			
Infusions 12 to 17, n = 46	8.1 (± 1.44)			

Notes:

[2] - Intention-to-treat (ITT) population.

Statistical analyses

No statistical analyses for this end point

Secondary: Annual Rate of Clinically Documented Serious Bacterial Infections (ITT Population)

End point title	Annual Rate of Clinically Documented Serious Bacterial Infections (ITT Population)

End point description:

Serious bacterial infections (SBIs) included bacterial pneumonia, bacteraemia/septicaemia, osteomyelitis/septic arthritis, bacterial meningitis, and visceral abscess. Diagnosis of the SBIs was based on the presence of predefined clinical signs and symptoms as well as on laboratory parameters.

The annual rate was calculated based on the total number of SBIs and the total number of study days during the efficacy period for all subjects in the ITT population and adjusted to 365 days.

Intention-to-treat (ITT) population analysis. The ITT population included all subjects who were treated with IgPro20 during the efficacy period (starting with Week 12).

End point type	Secondary

End point timeframe:

Efficacy period: week 12 to week 40 after study start or to the completion visit

End point values	IgPro20			
Subject group type	Reporting group			
Number of subjects analysed	46[3]			
Units: SBIs/subject/year	0			

Notes:

[3] - ITT population.
Number of Subject Days Analyzed: 8745

Statistical analyses

No statistical analyses for this end point

Secondary: Annual Rate of Clinically Documented Serious Bacterial Infections (PPE Population)

End point title	Annual Rate of Clinically Documented Serious Bacterial Infections (PPE Population)

End point description:

Serious bacterial infections (SBIs) included bacterial pneumonia, bacteraemia/septicaemia, osteomyelitis/septic arthritis, bacterial meningitis, and visceral abscess. Diagnosis of the SBIs was based on the presence of predefined clinical signs and symptoms as well as on laboratory parameters.

The annual rate was calculated based on the total number of SBIs and the total number of study days during the efficacy period for all subjects in the PPE population and adjusted to 365 days.

Per Protocol Efficacy (PPE) population analysis. The PPE population included all subjects who completed the 28-week efficacy period according to protocol.

End point type	Secondary

End point timeframe:

Efficacy period: week 12 to week 40 after study start or to the completion visit

End point values	IgPro20			
Subject group type	Reporting group			
Number of subjects analysed	34[4]			
Units: SBIs/subject/year	0			

Notes:

[4] - PPE population
Number of Subject Days Analyzed: 6729

Statistical analyses

No statistical analyses for this end point

Secondary: Annual Rate of Infection Episodes

End point title	Annual Rate of Infection Episodes

End point description:

The annual rate of episodes was calculated based on the total number of any infection type and the total number of study days during the efficacy period for all subjects in the ITT population and adjusted to 365 days.

Intention-to-treat (ITT) population analysis. The ITT population included all subjects who were treated with IgPro20 during the efficacy period (starting with Week 12).

End point type	Secondary

End point timeframe:

Efficacy period: week 12 to week 40 after study start or to the completion visit

End point values	IgPro20			
Subject group type	Reporting group			
Number of subjects analysed	46[5]			
Units: episodes/subject/year				
number (confidence interval 95%)	5.18 (4.31 to 6.17)			

Notes:

[5] - ITT population
Number of Subject Days Analyzed: 8745

Statistical analyses

No statistical analyses for this end point

Secondary: Annual Rate of Days Out of Work / School / Kindergarten / Day Care or Unable to Perform Normal Activities Due to Infections

End point title	Annual Rate of Days Out of Work / School / Kindergarten / Day Care or Unable to Perform Normal Activities Due to Infections

End point description:

The annual rate was calculated based on the total number of days out of work/school/kindergarten/day care or unable to perform normal activities due to infections in the efficacy period divided by the total number of days in the efficacy period for all subjects and adjusted to 365 days.

Intention-to-treat (ITT) population analysis. The ITT population included all subjects who were treated with IgPro20 during the efficacy period (starting with Week 12).

End point type	Secondary

End point timeframe:

Efficacy period: week 12 to week 40 after study start or to the completion visit

End point values	IgPro20			
Subject group type	Reporting group			
Number of subjects analysed	46[6]			
Units: days/subject/year				
number (not applicable)	8			

Notes:

[6] - ITT population
Number of Subject Days Analyzed: 9033

Statistical analyses

No statistical analyses for this end point

Secondary: Annual Rate of the Number of Days of Hospitalization Due to Infections

End point title	Annual Rate of the Number of Days of Hospitalization Due to Infections

End point description:

The annual rate was calculated based on the total number of days of hospitalization due to infections in the efficacy period divided by the total number of days in the efficacy period for all subjects and adjusted to 365 days.

Intention-to-treat (ITT) population analysis. The ITT population included all subjects who were treated with IgPro20 during the efficacy period (starting with Week 12).

End point type	Secondary

End point timeframe:

Efficacy period: week 12 to week 40 after study start or to the completion visit

End point values	IgPro20			
Subject group type	Reporting group			
Number of subjects analysed	46[7]			
Units: days/subject/year				
number (not applicable)	3.48			

Notes:

[7] - ITT population
Number of Subject Days Analyzed: 9033

Statistical analyses

No statistical analyses for this end point

Secondary: Annual Rate of Antibiotic Use for Infection Prophylaxis and Treatment

End point title	Annual Rate of Antibiotic Use for Infection Prophylaxis and Treatment

End point description:

The annual rate was calculated based on the total number of days of antibiotic use in the efficacy period divided by the total number of days in the efficacy period for all subjects and adjusted to 365 days.

Intention-to-treat (ITT) population analysis. The ITT population included all subjects who were treated

with IgPro20 during the efficacy period (starting with Week 12).

End point type	Secondary

End point timeframe:

Efficacy period: week 12 to week 40 after study start or to the completion visit

End point values	IgPro20			
Subject group type	Reporting group			
Number of subjects analysed	46[8]			
Units: days/subject/year				
number (not applicable)	72.75			

Notes:

[8] - ITT population
Number of Subject Days Analyzed: 8745

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Maximum Concentration (Cmax) of Total Serum IgG

End point title	Maximum Concentration (Cmax) of Total Serum IgG

End point description:

Per Protocol Pharmacokinetic (PPK) population analysis. A total of 24 of the 51 enrolled subjects were included in a pharmacokinetic (PK) sub-study. 23 subjects completed the PK sub-study per protocol and were included in the PPK analysis population.

End point type	Other pre-specified

End point timeframe:

Week 28 (±1week)

End point values	IgPro20 (PK Substudy)			
Subject group type	Subject analysis set			
Number of subjects analysed	23			
Units: g/L				
arithmetic mean (standard deviation)	8.26 (± 1.25)			

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Timepoint of Maximum Concentration (Tmax) of Total Serum IgG

End point title	Timepoint of Maximum Concentration (Tmax) of Total Serum IgG

End point description:

Per Protocol Pharmacokinetic (PPK) population analysis. A total of 24 of the 51 enrolled subjects were

included in a pharmacokinetic (PK) sub-study. 23 subjects completed the PK sub-study per protocol and were included in the PPK analysis population.

End point type	Other pre-specified

End point timeframe:

Week 28 (±1week)

End point values	IgPro20 (PK Substudy)			
Subject group type	Subject analysis set			
Number of subjects analysed	23			
Units: day				
median (full range (min-max))	2.06 (0.94 to 6.92)			

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Area Under the Concentration-Time Curve (AUC_last) of Total Serum IgG

End point title	Area Under the Concentration-Time Curve (AUC_last) of Total Serum IgG

End point description:

AUC_last = Area under the concentration-time curve until last measured concentration.
Per Protocol Pharmacokinetic (PPK) population analysis. A total of 24 of the 51 enrolled subjects were included in a pharmacokinetic (PK) sub-study. 23 subjects completed the PK sub-study per protocol and were included in the PPK analysis population.

End point type	Other pre-specified

End point timeframe:

Week 28 (±1week)

End point values	IgPro20 (PK Substudy)			
Subject group type	Subject analysis set			
Number of subjects analysed	23			
Units: day*g/L				
arithmetic mean (standard deviation)	53.7 (± 9.16)			

Statistical analyses

No statistical analyses for this end point

Other pre-specified: Area Under the Concentration-Time Curve (AUCτ) of Total Serum IgG

End point title	Area Under the Concentration-Time Curve (AUC_T) of Total Serum IgG

End point description:

AUC_T = Area under the concentration-time curve during regular dosing interval.

Per Protocol Pharmacokinetic (PPK) population analysis. A total of 24 of the 51 enrolled subjects were included in a pharmacokinetic (PK) sub-study. 23 subjects completed the PK sub-study per protocol and were included in the PPK analysis population. 7 subjects were missing data for AUC_T.

End point type	Other pre-specified

End point timeframe:

Week 28 (±1week)

End point values	IgPro20 (PK Substudy)			
Subject group type	Subject analysis set			
Number of subjects analysed	16[9]			
Units: day*g/L				
arithmetic mean (standard deviation)	53.61 (± 9.98)			

Notes:

[9] - 7 subjects were missing data for AUC_T.

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

The observation period for adverse events was from the time the subjects had given informed consent until they had the final examination (completion visit up to approximately 40 weeks) or extended when serious adverse events were reported.

Adverse event reporting additional description:

A total of 1831 infusions of IgPro20 were administered to 51 subjects during the course of the study.

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	12.0

Reporting groups

Reporting group title	IgPro20 (All Treated)

Reporting group description:

All subjects receiving at least 1 infusion of IgPro20

Serious adverse events	IgPro20 (All Treated)		
Total subjects affected by serious adverse events			
subjects affected / exposed	5 / 51 (9.80%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		
Nervous system disorders			
Sciatica			
subjects affected / exposed	1 / 51 (1.96%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
General disorders and administration site conditions			
Pyrexia			
subjects affected / exposed	1 / 51 (1.96%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Gastrointestinal disorders			
Diarrhoea			
subjects affected / exposed	1 / 51 (1.96%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			

Bronchiolitis			
subjects affected / exposed	1 / 51 (1.96%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Appendicitis			
subjects affected / exposed	1 / 51 (1.96%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Pneumonia			
subjects affected / exposed	1 / 51 (1.96%)		
occurrences causally related to treatment / all	0 / 2		
deaths causally related to treatment / all	0 / 0		

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

Non-serious adverse events	IgPro20 (All Treated)		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	46 / 51 (90.20%)		
Nervous system disorders			
Headache			
subjects affected / exposed	13 / 51 (25.49%)		
occurrences (all)	54		
General disorders and administration site conditions			
Pyrexia			
subjects affected / exposed	13 / 51 (25.49%)		
occurrences (all)	13		
Injection site reaction			
subjects affected / exposed	9 / 51 (17.65%)		
occurrences (all)	16		
Injection site pain			
subjects affected / exposed	6 / 51 (11.76%)		
occurrences (all)	8		
Infusion site pain			
subjects affected / exposed	5 / 51 (9.80%)		
occurrences (all)	10		

Injection site pruritus subjects affected / exposed occurrences (all)	5 / 51 (9.80%) 17		
Injection site swelling subjects affected / exposed occurrences (all)	4 / 51 (7.84%) 6		
Fatigue subjects affected / exposed occurrences (all)	3 / 51 (5.88%) 6		
Infusion site haematoma subjects affected / exposed occurrences (all)	3 / 51 (5.88%) 3		
Injection site erythema subjects affected / exposed occurrences (all)	3 / 51 (5.88%) 3		
Eye disorders Conjunctivitis subjects affected / exposed occurrences (all)	3 / 51 (5.88%) 6		
Gastrointestinal disorders Diarrhoea subjects affected / exposed occurrences (all)	9 / 51 (17.65%) 15		
Vomiting subjects affected / exposed occurrences (all)	4 / 51 (7.84%) 5		
Abdominal pain upper subjects affected / exposed occurrences (all)	3 / 51 (5.88%) 4		
Nausea subjects affected / exposed occurrences (all)	3 / 51 (5.88%) 3		
Respiratory, thoracic and mediastinal disorders Cough subjects affected / exposed occurrences (all)	13 / 51 (25.49%) 26		

Oropharyngeal pain subjects affected / exposed occurrences (all)	4 / 51 (7.84%) 12		
Skin and subcutaneous tissue disorders Rash subjects affected / exposed occurrences (all) Pruritus subjects affected / exposed occurrences (all) Erythema subjects affected / exposed occurrences (all)	 5 / 51 (9.80%) 5 4 / 51 (7.84%) 14 3 / 51 (5.88%) 5		
Musculoskeletal and connective tissue disorders Arthralgia subjects affected / exposed occurrences (all) Arthritis subjects affected / exposed occurrences (all)	 3 / 51 (5.88%) 3 3 / 51 (5.88%) 3		
Infections and infestations Bronchitis subjects affected / exposed occurrences (all) Nasopharyngitis subjects affected / exposed occurrences (all) Upper respiratory tract infection subjects affected / exposed occurrences (all) Sinusitis subjects affected / exposed occurrences (all) Respiratory tract infection subjects affected / exposed occurrences (all)	 16 / 51 (31.37%) 26 12 / 51 (23.53%) 20 12 / 51 (23.53%) 17 7 / 51 (13.73%) 11 4 / 51 (7.84%) 5		

Acute sinusitis			
subjects affected / exposed	3 / 51 (5.88%)		
occurrences (all)	4		
Gastroenteritis			
subjects affected / exposed	3 / 51 (5.88%)		
occurrences (all)	3		
Oral herpes			
subjects affected / exposed	3 / 51 (5.88%)		
occurrences (all)	3		
Rhinitis			
subjects affected / exposed	3 / 51 (5.88%)		
occurrences (all)	4		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
11 May 2007	A lower limit haemoglobin value of 10 g/dL was defined; subjects with haemoglobin values < 10 g/dL throughout the study were to be discontinued. The secondary objective of changes in viral safety markers was deleted because viral safety markers were only measured at screening. The inclusion criteria were changed to allow subjects with a diagnosis of ARAG to enter the study and minor changes to the schedule of assessments were incorporated. Furthermore, an additional HRQL instrument, the TSQM, was incorporated. This amendment was implemented before any subjects had received the first infusion of IgPro20.
31 May 2007	The lower age limit of subjects participating in the study was raised to 16 years of age for study sites in the UK to fulfil the requirement of the South West Research Ethics Committee. This amendment was implemented before any subjects had received the first infusion of IgPro20.
30 January 2009	Based on slow recruitment and to ensure sufficient data for children, the number of study sites was changed from approximately 12 study sites to 21 study sites in Europe, the number of subjects was changed from approximately 36 enrolled subjects to 51 enrolled subjects, and the recruitment period was extended from approximately 4 months to 15 months. The number of subgroup analyses as well as the lowest number of subjects in a subgroup was limited to provide meaningful results. Subgroup analyses were only to be done for the primary endpoint and the secondary endpoints number of infections and number of days out of work/school/kindergarten/day care or unable to perform normal activities due to infections. An additional subgroup analysis of treatment-emergent AEs was stipulated. This amendment was implemented after all subjects had received the first infusion of IgPro20 and after 38 subjects had completed the study or had discontinued from the study.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported

Online references

http://www.ncbi.nlm.nih.gov/pubmed/21705277

http://www.ncbi.nlm.nih.gov/pubmed/21674136