Clinical trial results:
A Multicenter, OpenLabel Study to Evaluate the LongTerm Safety, Tolerability and Efficacy of Subcutaneous PF06741086 in Subjects With Severe Hemophilia

Summary

EudraCT number	2017-001255-31
Trial protocol	PL ES BG HR
Global end of trial date	05 August 2020

Results information

Result version number	v1 (current)
This version publication date	02 June 2021
First version publication date	02 June 2021

Trial information

Trial identification

Sponsor protocol code	B7841003

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT03363321
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Pfizer Inc
Sponsor organisation address	235 E 42nd Street, New York, United States, NY 10017
Public contact	Pfizer ClinicalTrials.gov Call Centre, Pfizer Inc, +1 8007181021, ClinicalTrials.gov_Inquiries@pfizer.com
Scientific contact	Pfizer ClinicalTrials.gov Call Center, Pfizer Inc, +1 8007181021, ClinicalTrials.gov_Inquiries@pfizer.com

Notes:

Paediatric regulatory details

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

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	19 January 2021
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	05 August 2020
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

This study was designed to evaluate the safety, tolerability and efficacy of long-term treatment with PF-06741086 in severe hemophilia A or B subjects with or without inhibitors to FVIII or FIX who participated in the 3-month Phase 1b/2 Study B7841002. Additionally, de novo subjects were recruited into this study.

Protection of trial subjects:

This study was conducted in compliance with the ethical principles originating in or derived from the Declaration of Helsinki and in compliance with all International Council for Harmonisation (ICH) Good Clinical Practice (GCP) Guidelines. In addition, all local regulatory requirements were followed, in particular, those affording greater protection to the safety of trial subjects.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	30 May 2018
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	Brazil: 1
Country: Number of subjects enrolled	Chile: 7
Country: Number of subjects enrolled	Croatia: 1
Country: Number of subjects enrolled	Poland: 2
Country: Number of subjects enrolled	South Africa: 7
Country: Number of subjects enrolled	Switzerland: 1
Country: Number of subjects enrolled	United States: 1
Worldwide total number of subjects	20
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)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	20
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

Twenty-four individuals were screened and 4 failed at screening. All the 20 subjects who met the eligibility criteria were assigned to the study treatment and were treated with marstacimab. Among 20 subjects, 18 completed the study, and 2 discontinued from study due to withdrawal by subject, which were not related to safety.

Period 1

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

Arms

Are arms mutually exclusive?	Yes
Arm title	Cohort 1: 300mg - 300mg Non-Inhibitor

Arm description:

Subjects without inhibitors to Factor VIII (FVIII) or Factor IX (FIX) from Cohort 1 of Study 1002 (B7841002) continued to receive PF-06741086 300 mg subcutaneously (SC) once weekly (QW) from Day 1 to Day 365.

Arm type	Experimental
Investigational medicinal product name	Marstacimab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection/infusion
Routes of administration	Subcutaneous use

Dosage and administration details:

Marstacimab 300 mg was administered SC every week.

Arm title	Cohort 2: 300mg Loading (L)+150mg-300mg L+150mg Non-Inhibitor

Arm description:

Subjects without inhibitors to FVIII or FIX from Cohort 2 of Study 1002 continued to receive PF-06741086 300 mg loading dose on Day 1 and 150 mg SC QW from Day 29 to Day 365.

Arm type	Experimental
Investigational medicinal product name	Marstacimab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection/infusion
Routes of administration	Subcutaneous use

Dosage and administration details:

Marstacimab 300 mg loading dose, followed by 150 mg was administered SC every week.

Arm title	Cohort 3: 450mg - 300mg L + 150mg Non-Inhibitor

Arm description:

Subjects without inhibitors to FVIII or FIX from Cohort 3 (450 mg SC) of Study 1002 started to receive PF-06741086 300 mg loading dose on Day 1 and 150 mg SC QW from Day 29 to Day 365.

Arm type	Experimental

Investigational medicinal product name	Marstacimab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection/infusion
Routes of administration	Subcutaneous use

Dosage and administration details:

Marstacimab 300 mg loading dose, followed by 150 mg was administered SC every week.

Arm title	Cohort 4: 300mg - 300mg Inhibitor

Arm description:

Subjects with inhibitors to FVIII or FIX from Cohort 4 (300 mg SC) of Study 1002 continued to receive PF-06741086 300 mg SC QW from Day 1 to Day 365.

Arm type	Experimental
Investigational medicinal product name	Marstacimab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection/infusion
Routes of administration	Subcutaneous use

Dosage and administration details:

Marstacimab 300 mg was administered SC every week.

Arm title	Cohort 5: De Novo 300mg L + 150mg Inhibitors

Arm description:

De Novo subjects with inhibitors to FVIII or FIX received a 300 mg SC loading dose on Day 1, and then followed by 150 mg SC QW to Day 365.

Arm type	Experimental
Investigational medicinal product name	Marstacimab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection/infusion
Routes of administration	Subcutaneous use

Dosage and administration details:

Marstacimab 300 mg loading dose, followed by 150 mg was administered SC every week.

Number of subjects in period 1	Cohort 1: 300mg - 300mg Non-Inhibitor	Cohort 2: 300mg Loading (L)+150mg-300mg L+150mg Non-Inhibitor	Cohort 3: 450mg - 300mg L + 150mg Non-Inhibitor
Started	5	4	4
Completed	5	3	4
Not completed	0	1	0
Consent withdrawn by subject	-	1	-

Number of subjects in period 1	Cohort 4: 300mg - 300mg Inhibitor	Cohort 5: De Novo 300mg L + 150mg Inhibitors
Started	5	2
Completed	4	2
Not completed	1	0
Consent withdrawn by subject	1	-

Baseline characteristics

Reporting groups	
Reporting group title	Cohort 1: 300mg - 300mg Non-Inhibitor
Reporting group description:	
Subjects without inhibitors to Factor VIII (FVIII) or Factor IX (FIX) from Cohort 1 of Study 1002 (B7841002) continued to receive PF-06741086 300 mg subcutaneously (SC) once weekly (QW) from Day 1 to Day 365.	
Reporting group title	Cohort 2: 300mg Loading (L)+150mg-300mg L+150mg Non-Inhibitor
Reporting group description:	
Subjects without inhibitors to FVIII or FIX from Cohort 2 of Study 1002 continued to receive PF-06741086 300 mg loading dose on Day 1 and 150 mg SC QW from Day 29 to Day 365.	
Reporting group title	Cohort 3: 450mg - 300mg L + 150mg Non-Inhibitor
Reporting group description:	
Subjects without inhibitors to FVIII or FIX from Cohort 3 (450 mg SC) of Study 1002 started to receive PF-06741086 300 mg loading dose on Day 1 and 150 mg SC QW from Day 29 to Day 365.	
Reporting group title	Cohort 4: 300mg - 300mg Inhibitor
Reporting group description:	
Subjects with inhibitors to FVIII or FIX from Cohort 4 (300 mg SC) of Study 1002 continued to receive PF-06741086 300 mg SC QW from Day 1 to Day 365.	
Reporting group title	Cohort 5: De Novo 300mg L + 150mg Inhibitors
Reporting group description:	
De Novo subjects with inhibitors to FVIII or FIX received a 300 mg SC loading dose on Day 1, and then followed by 150 mg SC QW to Day 365.	

Reporting group values	Cohort 1: 300mg - 300mg Non-Inhibitor	Cohort 2: 300mg Loading (L)+150mg-300mg L+150mg Non-Inhibitor	Cohort 3: 450mg - 300mg L + 150mg Non-Inhibitor
Number of subjects	5	4	4
Age Categorical Units: Subjects			
<18 Years	0	0	0
18-44 Years	4	4	2
45-64 Years	1	0	2
>=65 Years	0	0	0
Unspecified Years	0	0	0
Age Continuous Units: Years			
arithmetic mean	33.0	31.3	41.8
standard deviation	± 9.70	± 10.63	± 16.24
Sex: Female, Male Units: Subjects			
Female	0	0	0
Male	5	4	4
Race/Ethnicity, Customized Units: Subjects			
White	3	2	4
Black or African American	2	2	0
Asian	0	0	0
American Indian or Alaska Native	0	0	0

Native Hawaiian or Other Pacific Islander	0	0	0
Other	0	0	0
Unknown	0	0	0
Multiracial	0	0	0
Not reported	0	0	0
Ethnicity (NIH/OMB)			
Units: Subjects			
Hispanic or Latino	3	2	1
Not Hispanic or Latino	2	2	3
Unknown or Not Reported	0	0	0

Reporting group values	Cohort 4: 300mg - 300mg Inhibitor	Cohort 5: De Novo 300mg L + 150mg Inhibitors	Total
Number of subjects	5	2	20
Age Categorical			
Units: Subjects			
<18 Years	0	0	0
18-44 Years	3	2	15
45-64 Years	2	0	5
>=65 Years	0	0	0
Unspecified Years	0	0	0
Age Continuous			
Units: Years			
arithmetic mean	42.0	20.0	
standard deviation	± 5.24	± 1.41	-
Sex: Female, Male			
Units: Subjects			
Female	0	0	0
Male	5	2	20
Race/Ethnicity, Customized			
Units: Subjects			
White	3	2	14
Black or African American	2	0	6
Asian	0	0	0
American Indian or Alaska Native	0	0	0
Native Hawaiian or Other Pacific Islander	0	0	0
Other	0	0	0
Unknown	0	0	0
Multiracial	0	0	0
Not reported	0	0	0
Ethnicity (NIH/OMB)			
Units: Subjects			
Hispanic or Latino	1	0	7
Not Hispanic or Latino	4	2	13
Unknown or Not Reported	0	0	0

End points

End points reporting groups

Reporting group title	Cohort 1: 300mg - 300mg Non-Inhibitor
Reporting group description:	
Subjects without inhibitors to Factor VIII (FVIII) or Factor IX (FIX) from Cohort 1 of Study 1002 (B7841002) continued to receive PF-06741086 300 mg subcutaneously (SC) once weekly (QW) from Day 1 to Day 365.	
Reporting group title	Cohort 2: 300mg Loading (L)+150mg-300mg L+150mg Non-Inhibitor
Reporting group description:	
Subjects without inhibitors to FVIII or FIX from Cohort 2 of Study 1002 continued to receive PF-06741086 300 mg loading dose on Day 1 and 150 mg SC QW from Day 29 to Day 365.	
Reporting group title	Cohort 3: 450mg - 300mg L + 150mg Non-Inhibitor
Reporting group description:	
Subjects without inhibitors to FVIII or FIX from Cohort 3 (450 mg SC) of Study 1002 started to receive PF-06741086 300 mg loading dose on Day 1 and 150 mg SC QW from Day 29 to Day 365.	
Reporting group title	Cohort 4: 300mg - 300mg Inhibitor
Reporting group description:	
Subjects with inhibitors to FVIII or FIX from Cohort 4 (300 mg SC) of Study 1002 continued to receive PF-06741086 300 mg SC QW from Day 1 to Day 365.	
Reporting group title	Cohort 5: De Novo 300mg L + 150mg Inhibitors
Reporting group description:	
De Novo subjects with inhibitors to FVIII or FIX received a 300 mg SC loading dose on Day 1, and then followed by 150 mg SC QW to Day 365.	

Primary: Number of Subjects With Treatment-Emergent Adverse Events (TEAEs), TEAEs by Severity, and Serious Adverse Events (SAEs) (All Causality and Treatment-related)

End point title	Number of Subjects With Treatment-Emergent Adverse Events (TEAEs), TEAEs by Severity, and Serious Adverse Events (SAEs) (All Causality and Treatment-related)[1]
End point description:	
An adverse event (AE) was any untoward medical occurrence in a clinical investigation subject administered a product; the event did not need to have a causal relationship with the treatment. An SAE was any untoward medical occurrence at any dose that resulted in death; was life threatening; required inpatient hospitalization or prolongation of existing hospitalization; resulted in persistent or significant disability/incapacity; resulted in congenital anomaly/birth defect. AEs included both SAEs and non-serious AEs. TEAEs were AEs occurred following the start of treatment or AEs increasing in severity during treatment. Treatment-related TEAEs were determined by the investigator. The analysis population included all subjects who received at least 1 dose of investigational product. Here "Number of Subjects Analyzed" signifies number of subjects who were evaluable for this endpoint.	
End point type	Primary
End point timeframe:	
Day 1 up to Day 393	

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 analysis was planned for this endpoint

End point values	Cohort 1: 300mg - 300mg Non-Inhibitor	Cohort 2: 300mg Loading (L)+150mg-300mg L+150mg Non-Inhibitor	Cohort 3: 450mg - 300mg L + 150mg Non-Inhibitor	Cohort 4: 300mg - 300mg Inhibitor
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	5	4	4	5
Units: Subjects				
All-causalities TEAE	5	2	4	2
Treatment-related TEAE	2	0	0	0
All-causalities serious TEAE	1	0	0	0
Treatment-related serious TEAE	0	0	0	0
All-causalities Grade 3 or 4 TEAE	1	0	0	0
Treatment-related Grade 3 or 4 TEAE	0	0	0	0

End point values	Cohort 5: De Novo 300mg L + 150mg Inhibitors			
Subject group type	Reporting group			
Number of subjects analysed	2			
Units: Subjects				
All-causalities TEAE	1			
Treatment-related TEAE	1			
All-causalities serious TEAE	0			
Treatment-related serious TEAE	0			
All-causalities Grade 3 or 4 TEAE	1			
Treatment-related Grade 3 or 4 TEAE	0			

Statistical analyses

No statistical analyses for this end point

Primary: Number of Subjects With Abnormal Laboratory Findings Without Regard to Baseline Abnormality (Including Hematology, Serum Chemistry, and Urinalysis)

End point title	Number of Subjects With Abnormal Laboratory Findings Without Regard to Baseline Abnormality (Including Hematology, Serum Chemistry, and Urinalysis)[2]

End point description:

Following parameters were analyzed for laboratory examination: hematology, clinical chemistry, and urinalysis. The hematology parameters and pre-defined criteria included: neutrophils (10^3/millimeter[mm]^3) <0.8*lower limit of normal (LLN), and basophils (10^3/mm^3) >1.2*upper limit of normal (ULN). The clinical chemistry parameter and pre-defined criteria included: biliirubin (milligrams [mg]/decilitre [dL]) >1.5 ULN, aspartate aminotransferase (units [U]/liter [L]) >3.0 ULN, glucose (mg/dL) >1.5*ULN. The urinalysis parameter and pre-defined criteria included: urine glucose ≥1, ketones (scalar) ≥1, urine protein ≥1, urine hemoglobin (scalar) ≥1, and hyaline casts per low power field (/LPF). The analysis population included all subjects who received at least 1 dose of investigational product. Here "Number of Subjects Analyzed" signifies number of subjects who were evaluable for this endpoint.

End point type	Primary

End point timeframe:

Hematology and serum chemistry: Baseline, Days 1, 29, 57, 85, 169, 253, and 365 visits. Urinalysis: Baseline, Days 1, 85, 169, 253, and 365 visits.

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: No statistical analysis was planned for this endpoint

End point values	Cohort 1: 300mg - 300mg Non-Inhibitor	Cohort 2: 300mg Loading (L)+150mg-300mg L+150mg Non-Inhibitor	Cohort 3: 450mg - 300mg L + 150mg Non-Inhibitor	Cohort 4: 300mg - 300mg Inhibitor
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	5[3]	3[4]	4[5]	5[6]
Units: Subjects				
Neutrophils (10^3/mm^3) <0.8*LLN	1	1	0	0
Basophils (10^3/mm^3) >1.2*ULN	0	0	0	1
Bilirubin (mg/dL) >1.5*ULN	0	0	0	0
Aspartate Aminotransferase (U/L) >3.0*ULN	0	0	0	0
Glucose (mg/dL) >1.5*ULN	0	0	1	1
Urine Glucose ≥1	0	0	1	0
Ketones (Scalar) ≥1	1	0	0	0
Urine Protein ≥1	0	1	0	0
Urine Hemoglobin (Scalar) ≥1	0	0	1	0
Hyaline Casts (/LPF) >1	0	1	0	1

Notes:

[3] - Number of Subjects Evaluable for Hyaline Casts was 0.

[4] - Number of Subjects Evaluable for Hyaline Casts was 1.

[5] - Number of Subjects Evaluable for Hyaline Casts was 0.

[6] - Number of Subjects Evaluable for Hyaline Casts was 1.

End point values	Cohort 5: De Novo 300mg L + 150mg Inhibitors			
Subject group type	Reporting group			
Number of subjects analysed	2[7]			
Units: Subjects				
Neutrophils (10^3/mm^3) <0.8*LLN	0			
Basophils (10^3/mm^3) >1.2*ULN	1			
Bilirubin (mg/dL) >1.5*ULN	1			
Aspartate Aminotransferase (U/L) >3.0*ULN	1			
Glucose (mg/dL) >1.5*ULN	0			
Urine Glucose ≥1	0			
Ketones (Scalar) ≥1	0			
Urine Protein ≥1	0			
Urine Hemoglobin (Scalar) ≥1	0			
Hyaline Casts (/LPF) >1	0			

Notes:

[7] - Number of Subjects Evaluable for Hyaline Casts was 1.

Statistical analyses

No statistical analyses for this end point

Primary: Number of Subjects With Changes From Baseline in Vital Signs Measurements Meeting the Pre-defined Categorical Summarization Criteria

End point title	Number of Subjects With Changes From Baseline in Vital Signs Measurements Meeting the Pre-defined Categorical Summarization Criteria[8]

End point description:

Following parameters were analyzed for vital sign examination: blood pressure (BP), pulse rate (PR), temperature, respiration rate. Categorical vital signs: Temperature >38.5 degree(s) Celsius (), Supine PR: <40 or >120 beats per minute (BPM), Systolic BP: <90 millimeter of mercury (mm Hg), >=30 mm Hg change from baseline, Diastolic BP: <50 mm Hg, >=20 mm Hg change from baseline. The analysis population included all subjects who received at least 1 dose of investigational product.

End point type	Primary

End point timeframe:

Baseline, Days 1, 29, 57, 85, 113, 141, 169, 197, 225, 253, 281, 309, 337, 365 and 393 visits.

Notes:

[8] - 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 analysis was planned for this endpoint

End point values	Cohort 1: 300mg - 300mg Non-Inhibitor	Cohort 2: 300mg Loading (L)+150mg-300mg L+150mg Non-Inhibitor	Cohort 3: 450mg - 300mg L + 150mg Non-Inhibitor	Cohort 4: 300mg - 300mg Inhibitor
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	5	4	4	5
Units: Subjects				
Systolic BP (mmHg) < 90	0	0	0	0
Systolic BP Change ≥30 mm Hg increase	0	0	1	0
Systolic BP Change ≥30 mm Hg decrease	0	1	0	1
Diastolic BP (mmHg) < 50	0	0	0	0
Diastolic BP Change ≥20 mm Hg increase	1	0	1	1
Diastolic BP Change ≥20 mm Hg decrease	0	1	1	1
Supine PR (BPM) <40	0	0	0	0
Supine PR (BPM) >120	0	0	0	0
Temperature >38.5	0	0	0	0

End point values	Cohort 5: De Novo 300mg L + 150mg Inhibitors			
Subject group type	Reporting group			
Number of subjects analysed	2			
Units: Subjects				
Systolic BP (mmHg) < 90	0			

Systolic BP Change ≥30 mm Hg increase	0			
Systolic BP Change ≥30 mm Hg decrease	0			
Diastolic BP (mmHg) < 50	0			
Diastolic BP Change ≥20 mm Hg increase	0			
Diastolic BP Change ≥20 mm Hg decrease	0			
Supine PR (BPM) <40	0			
Supine PR (BPM) >120	0			
Temperature >38.5	0			

Statistical analyses

No statistical analyses for this end point

Primary: Number of Subjects With Change From Baseline in Electrocardiogram (ECG) Parameters Meeting the Pre-defined Categorical Summarization Criteria

End point title	Number of Subjects With Change From Baseline in Electrocardiogram (ECG) Parameters Meeting the Pre-defined Categorical Summarization Criteria[9][10]

End point description:

ECG was only evaluated in de novo subjects. Baseline was defined as the average of triplicate ECG measurements collected prior to dosing on Day 1 in B7841003. Criteria for potentially clinically important changes in ECG were defined as: PR interval value >=300 millisecond (msec); PR interval baseline >200 msec and change >=25%; PR interval baseline <=200 msec and change >=50%; QRS complex value >=140 msec and change >=50%; QTcF value >=450 msec and change >=30 msec. Only the number of participants meeting pre-defined criteria was reported below.

End point type	Primary

End point timeframe:

Baseline, Days 1 and 29 visits.

Notes:

[9] - 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 analysis was planned for this endpoint

[10] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: Analysis was only planned for the arm identified

End point values	Cohort 5: De Novo 300mg L + 150mg Inhibitors			
Subject group type	Reporting group			
Number of subjects analysed	2			
Units: Subjects				
PR interval value >=300 msec	0			
PR interval baseline >200 msec and Change >=25%	0			
PR interval baseline <=200 msec and change >=50%	0			
QRS complex value >=140 msec	0			
QRS complex change >=50%	0			

450 msec<= QTcF Value <480 msec	0			
480 msec<= QTcF Value <500 msec	0			
QTcF Value >=500 msec	0			
30 msec<= QTcF Change <60 msec	0			
QTcF Change >=60 msec	0			

Statistical analyses

No statistical analyses for this end point

Primary: Number of Subjects With Abnormalities in Physical Examination Findings

End point title	Number of Subjects With Abnormalities in Physical Examination Findings[11]

End point description:

Physical examination included head, ears, eyes, nose, mouth, skin, heart and lung examinations, lymph nodes, gastrointestinal, musculoskeletal, and neurological systems. The analysis population included all subjects who received at least 1 dose of investigational product.

End point type	Primary

End point timeframe:

Day 1 to Day 393

Notes:

[11] - 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 analysis was planned for this endpoint

End point values	Cohort 1: 300mg - 300mg Non-Inhibitor	Cohort 2: 300mg Loading (L)+150mg-300mg L+150mg Non-Inhibitor	Cohort 3: 450mg - 300mg L + 150mg Non-Inhibitor	Cohort 4: 300mg - 300mg Inhibitor
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	5	4	4	5
Units: Subjects	5	2	3	4

End point values	Cohort 5: De Novo 300mg L + 150mg Inhibitors			
Subject group type	Reporting group			
Number of subjects analysed	2			
Units: Subjects	2			

Statistical analyses

No statistical analyses for this end point

Primary: Number of Subjects With Injection Site Reactions

End point title	Number of Subjects With Injection Site Reactions[12]

End point description:

Injection site reactions included but were not limited to: erythema, induration, ecchymosis, pain and pruritus. Grade of severity was defined as follows: Mild: Transient or mild discomfort (< 48 hours); no medical intervention/therapy required. Moderate: Mild to moderate limitation in activity - some assistance may be needed; no or minimal medical intervention/therapy required. Severe: Marked limitation in activity, some assistance usually required; medical intervention/therapy required, hospitalizations possible. The analysis population included all subjects who received at least 1 dose of investigational product.

End point type	Primary

End point timeframe:

Day 1 to Day 365, and Day 393 visit.

Notes:

[12] - 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 analysis was planned for this endpoint

End point values	Cohort 1: 300mg - 300mg Non-Inhibitor	Cohort 2: 300mg Loading (L)+150mg-300mg L+150mg Non-Inhibitor	Cohort 3: 450mg - 300mg L + 150mg Non-Inhibitor	Cohort 4: 300mg - 300mg Inhibitor
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	5	4	4	5
Units: Subjects				
Erythema (redness) Mild	0	0	0	0
Erythema (redness) Moderate	0	0	0	0
Erythema (redness) Severe	0	0	0	0
Induration (swelling) Mild	1	0	0	0
Induration (swelling) Moderate	0	0	0	0
Induration (swelling) Severe	0	0	0	0
Ecchymosis (bruising) Mild	1	0	0	0
Ecchymosis (bruising) Moderate	0	0	0	0
Ecchymosis (bruising) Severe	0	0	0	0
Pain (after injection) Mild	1	0	0	0
Pain (after injection) Moderate	0	0	0	0
Pain (after injection) Severe	0	0	0	0
Pruritus (itching) Mild	1	0	0	0
Pruritus (itching) Moderate	0	0	0	0
Pruritus (itching) Severe	0	0	0	0
Other Mild	1	0	0	0
Other Moderate	0	0	0	0
Other Severe	0	0	0	0
Any injection site reaction Mild	2	0	0	0
Any injection site reaction Moderate	0	0	0	0
Any injection site reaction Severe	0	0	0	0

End point values	Cohort 5: De Novo 300mg L + 150mg Inhibitors			

Subject group type	Reporting group			
Number of subjects analysed	2			
Units: Subjects				
Erythema (redness) Mild	0			
Erythema (redness) Moderate	0			
Erythema (redness) Severe	1			
Induration (swelling) Mild	0			
Induration (swelling) Moderate	0			
Induration (swelling) Severe	1			
Ecchymosis (bruising) Mild	0			
Ecchymosis (bruising) Moderate	0			
Ecchymosis (bruising) Severe	0			
Pain (after injection) Mild	0			
Pain (after injection) Moderate	0			
Pain (after injection) Severe	0			
Pruritus (itching) Mild	0			
Pruritus (itching) Moderate	0			
Pruritus (itching) Severe	0			
Other Mild	0			
Other Moderate	0			
Other Severe	1			
Any injection site reaction Mild	0			
Any injection site reaction Moderate	0			
Any injection site reaction Severe	1			

Statistical analyses

No statistical analyses for this end point

Secondary: Annualized Bleeding Rate (ABR)

End point title	Annualized Bleeding Rate (ABR)

End point description:

The ABR was calculated as ([number of bleeding events × 365.25] / observed treatment period in days)

End point type	Secondary

End point timeframe:

Day 1 to Day 365, and Day 393 visit. Pre-Treatment summarized the data up to 6 months prior to participation in B7841003 for de novo subjects and up to 6 months prior to participation in B7841002 for roll over subjects.

End point values	Cohort 1: 300mg - 300mg Non-Inhibitor	Cohort 2: 300mg Loading (L)+150mg-300mg L+150mg Non-Inhibitor	Cohort 3: 450mg - 300mg L + 150mg Non-Inhibitor	Cohort 4: 300mg - 300mg Inhibitor
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	5	4	4	5
Units: Bleeding episodes per subject per year				

arithmetic mean (standard deviation)				
Pre-Treatment	22.000 (± 7.8740)	14.000 (± 1.6330)	22.000 (± 13.5647)	18.400 (± 1.6733)
On-Study	2.971 (± 2.7895)	3.586 (± 7.1726)	1.916 (± 1.4492)	0.000 (± 0.0000)

End point values	Cohort 5: De Novo 300mg L + 150mg Inhibitors			
Subject group type	Reporting group			
Number of subjects analysed	2			
Units: Bleeding episodes per subject per year				
arithmetic mean (standard deviation)				
Pre-Treatment	15.000 (± 4.2426)			
On-Study	2.488 (± 3.5187)			

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Day 1 up to Day 393

Adverse event reporting additional description:

The same event may appear as both AE and SAE; however, what is presented are distinct events. An event may be categorized as serious in 1 subject and as non-serious in another subject, or 1 subject may have experienced both a serious and non-serious event during the study.

Assessment type	Non-systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	23.0

Reporting groups

Reporting group title	Cohort 1: 300mg - 300mg Non-Inhibitor

Reporting group description:

Subjects without inhibitors to FVIII or FIX from Cohort 1 of Study 1002 continued to receive PF-06741086 300 mg SC QW from Day 1 to Day 365.

Reporting group title	Cohort 2: 300mg L+150mg-300mg L+150mg Non-Inhibitor

Reporting group description:

Subjects without inhibitors to FVIII or FIX from Cohort 2 of
Study 1002 continued to receive PF-06741086 300 mg loading dose on Day 1 and 150 mg SC QW from Day 29 to Day 365.

Reporting group title	Cohort 3: 450mg - 300mg L + 150mg Non-Inhibitor

Reporting group description:

Subjects without inhibitors to FVIII or FIX from Cohort 3 (450 mg SC) of Study 1002 started to receive PF-06741086 300 mg loading dose on Day 1 and 150 mg SC QW from Day 29 to Day 365.

Reporting group title	Cohort 4: 300mg - 300mg Inhibitor

Reporting group description:

Subjects with inhibitors to FVIII or FIX from Cohort 4 (300 mg SC) of Study 1002 continued to receive PF-06741086 300 mg SC QW from Day 1 to Day 365.

Reporting group title	Cohort 5: De Novo 300mg Loading + 150mg Inhibitors

Reporting group description:

De Novo subjects with inhibitors to FVIII or FIX received a 300 mg SC loading dose on Day 1, and then followed by 150 mg SC QW to Day 365.

Serious adverse events	Cohort 1: 300mg - 300mg Non-Inhibitor	Cohort 2: 300mg L+150mg-300mg L+150mg Non-Inhibitor	Cohort 3: 450mg - 300mg L + 150mg Non-Inhibitor
Total subjects affected by serious adverse events			
subjects affected / exposed	1 / 5 (20.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0
Nervous system disorders			
Cerebral haemorrhage			

subjects affected / exposed	1 / 5 (20.00%)	0 / 4 (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
Generalised tonic-clonic seizure			
subjects affected / exposed	1 / 5 (20.00%)	0 / 4 (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	Cohort 4: 300mg - 300mg Inhibitor	Cohort 5: De Novo 300mg Loading + 150mg Inhibitors	
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 5 (0.00%)	0 / 2 (0.00%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events	0	0	
Nervous system disorders			
Cerebral haemorrhage			
subjects affected / exposed	0 / 5 (0.00%)	0 / 2 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Generalised tonic-clonic seizure			
subjects affected / exposed	0 / 5 (0.00%)	0 / 2 (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: 5 %

Non-serious adverse events	Cohort 1: 300mg - 300mg Non-Inhibitor	Cohort 2: 300mg L+150mg-300mg L+150mg Non-Inhibitor	Cohort 3: 450mg - 300mg L + 150mg Non-Inhibitor
Total subjects affected by non-serious adverse events			
subjects affected / exposed	5 / 5 (100.00%)	2 / 4 (50.00%)	4 / 4 (100.00%)
Investigations			
Weight increased			
subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Injury, poisoning and procedural complications			

Burns second degree			
subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Contusion			
subjects affected / exposed	1 / 5 (20.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	1	0	0
Limb injury			
subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Skull fracture			
subjects affected / exposed	1 / 5 (20.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	1	0	0
Soft tissue injury			
subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	1 / 4 (25.00%)
occurrences (all)	0	0	1
Vascular disorders			
Haematoma			
subjects affected / exposed	0 / 5 (0.00%)	1 / 4 (25.00%)	1 / 4 (25.00%)
occurrences (all)	0	2	1
Hypertension			
subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	1 / 4 (25.00%)
occurrences (all)	0	0	1
Nervous system disorders			
Epilepsy			
subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	1 / 4 (25.00%)
occurrences (all)	0	0	1
Headache			
subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
General disorders and administration site conditions			
Injection site haematoma			
subjects affected / exposed	1 / 5 (20.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	1	0	0
Injection site reaction			
subjects affected / exposed	1 / 5 (20.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	2	0	0

Inflammation			
subjects affected / exposed	1 / 5 (20.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	1	0	0
Oedema peripheral			
subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Gastrointestinal disorders			
Food poisoning, unspecified			
subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Nausea			
subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Vomiting			
subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Skin and subcutaneous tissue disorders			
Skin harmorrhage			
subjects affected / exposed	0 / 5 (0.00%)	1 / 4 (25.00%)	0 / 4 (0.00%)
occurrences (all)	0	1	0
Psychiatric disorders			
Disorientation			
subjects affected / exposed	1 / 5 (20.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	1	0	0
Musculoskeletal and connective tissue disorders			
Arthralgia			
subjects affected / exposed	1 / 5 (20.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	1	0	0
Arthropathy			
subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	1 / 4 (25.00%)
occurrences (all)	0	0	1
Haemarthrosis			
subjects affected / exposed	2 / 5 (40.00%)	1 / 4 (25.00%)	0 / 4 (0.00%)
occurrences (all)	4	2	0
Joint range of motion decreased			

subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Joint swelling			
subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Joint warmth			
subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Pain in extremit			
subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Synovitis			
subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Infections and infestations			
Influenza			
subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	0	0	0
Sinusitis			
subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	1 / 4 (25.00%)
occurrences (all)	0	0	1
Tonsillitis			
subjects affected / exposed	1 / 5 (20.00%)	0 / 4 (0.00%)	0 / 4 (0.00%)
occurrences (all)	1	0	0
Metabolism and nutrition disorders			
Diabetes mellitus			
subjects affected / exposed	0 / 5 (0.00%)	0 / 4 (0.00%)	1 / 4 (25.00%)
occurrences (all)	0	0	1

Non-serious adverse events	Cohort 4: 300mg - 300mg Inhibitor	Cohort 5: De Novo 300mg Loading + 150mg Inhibitors	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	2 / 5 (40.00%)	1 / 2 (50.00%)	
Investigations			
Weight increased			
subjects affected / exposed	1 / 5 (20.00%)	0 / 2 (0.00%)	
occurrences (all)	1	0	

Injury, poisoning and procedural complications			
Burns second degree			
subjects affected / exposed	1 / 5 (20.00%)	0 / 2 (0.00%)	
occurrences (all)	1	0	
Contusion			
subjects affected / exposed	0 / 5 (0.00%)	0 / 2 (0.00%)	
occurrences (all)	0	0	
Limb injury			
subjects affected / exposed	0 / 5 (0.00%)	1 / 2 (50.00%)	
occurrences (all)	0	2	
Skull fracture			
subjects affected / exposed	0 / 5 (0.00%)	0 / 2 (0.00%)	
occurrences (all)	0	0	
Soft tissue injury			
subjects affected / exposed	0 / 5 (0.00%)	0 / 2 (0.00%)	
occurrences (all)	0	0	
Vascular disorders			
Haematoma			
subjects affected / exposed	0 / 5 (0.00%)	0 / 2 (0.00%)	
occurrences (all)	0	0	
Hypertension			
subjects affected / exposed	1 / 5 (20.00%)	0 / 2 (0.00%)	
occurrences (all)	1	0	
Nervous system disorders			
Epilepsy			
subjects affected / exposed	0 / 5 (0.00%)	0 / 2 (0.00%)	
occurrences (all)	0	0	
Headache			
subjects affected / exposed	0 / 5 (0.00%)	1 / 2 (50.00%)	
occurrences (all)	0	1	
General disorders and administration site conditions			
Injection site haematoma			
subjects affected / exposed	0 / 5 (0.00%)	0 / 2 (0.00%)	
occurrences (all)	0	0	
Injection site reaction			

subjects affected / exposed	0 / 5 (0.00%)	1 / 2 (50.00%)	
occurrences (all)	0	1	
Inflammation			
subjects affected / exposed	0 / 5 (0.00%)	0 / 2 (0.00%)	
occurrences (all)	0	0	
Oedema peripheral			
subjects affected / exposed	0 / 5 (0.00%)	1 / 2 (50.00%)	
occurrences (all)	0	1	
Gastrointestinal disorders			
Food poisoning, unspecified			
subjects affected / exposed	0 / 5 (0.00%)	1 / 2 (50.00%)	
occurrences (all)	0	1	
Nausea			
subjects affected / exposed	0 / 5 (0.00%)	1 / 2 (50.00%)	
occurrences (all)	0	1	
Vomiting			
subjects affected / exposed	0 / 5 (0.00%)	1 / 2 (50.00%)	
occurrences (all)	0	1	
Skin and subcutaneous tissue disorders			
Skin harmorrhage			
subjects affected / exposed	0 / 5 (0.00%)	0 / 2 (0.00%)	
occurrences (all)	0	0	
Psychiatric disorders			
Disorientation			
subjects affected / exposed	0 / 5 (0.00%)	0 / 2 (0.00%)	
occurrences (all)	0	0	
Musculoskeletal and connective tissue disorders			
Arthralgia			
subjects affected / exposed	0 / 5 (0.00%)	1 / 2 (50.00%)	
occurrences (all)	0	3	
Arthropathy			
subjects affected / exposed	0 / 5 (0.00%)	0 / 2 (0.00%)	
occurrences (all)	0	0	
Haemarthrosis			
subjects affected / exposed	0 / 5 (0.00%)	0 / 2 (0.00%)	
occurrences (all)	0	0	

Joint range of motion decreased			
subjects affected / exposed	0 / 5 (0.00%)	1 / 2 (50.00%)	
occurrences (all)	0	1	
Joint swelling			
subjects affected / exposed	0 / 5 (0.00%)	1 / 2 (50.00%)	
occurrences (all)	0	1	
Joint warmth			
subjects affected / exposed	0 / 5 (0.00%)	1 / 2 (50.00%)	
occurrences (all)	0	1	
Pain in extremit			
subjects affected / exposed	0 / 5 (0.00%)	1 / 2 (50.00%)	
occurrences (all)	0	1	
Synovitis			
subjects affected / exposed	0 / 5 (0.00%)	1 / 2 (50.00%)	
occurrences (all)	0	1	
Infections and infestations			
Influenza			
subjects affected / exposed	0 / 5 (0.00%)	1 / 2 (50.00%)	
occurrences (all)	0	1	
Sinusitis			
subjects affected / exposed	0 / 5 (0.00%)	0 / 2 (0.00%)	
occurrences (all)	0	0	
Tonsillitis			
subjects affected / exposed	0 / 5 (0.00%)	0 / 2 (0.00%)	
occurrences (all)	0	0	
Metabolism and nutrition disorders			
Diabetes mellitus			
subjects affected / exposed	0 / 5 (0.00%)	0 / 2 (0.00%)	
occurrences (all)	0	0	

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
08 November 2018	1. Protocol Summary: Revised treatment duration from 6 months to up to 365 days; Revised visit day numbers to correspond to up to 365 days treatment duration. 3. Added clinic visits on Days 225, 253, 281, 309, 337, and 365; Revised Table 1 title and footnotes to correspond to additional clinic visits and extended treatment duration. 4. Revised treatment duration from 6 months to up to 365 days. 5. Study Duration: Revised maximum study duration to 15 months. 6. Revised Inclusion Criterion #2 for de novo subjects to add the requirement for episodic (on-demand) treatment prior to screening, as mandated by the FDA; Added Inclusion Criterion #3 for de novo subjects to add the requirement for 6 or more breakthrough bleeding episodes in the 6 month period prior to screening, as mandated by the FDA. 7. Preparation and Dispensing: Revised visit day numbers to correspond to up to 365 days treatment duration. 8. Added text to clarify that Day 57 hematology and serum chemistry samples are for de novo subjects only; Removed Day 29 PK sample collection as it is intended for de novo subjects only (referenced in Section 6.2.2). 9. Section 6.2.4 Day 393 – End of Study Visit: Revised section to add clinic visit on Day 393. 10. Blood Volume: Revised Table 4 to include additional samples.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported