Clinical trial results:
A phase 2b, randomized, controlled, observer-blind, multi-center study to evaluate safety and immunogenicity of different formulations of GSK Biologicals' Meningococcal ACWY conjugate vaccine (GSK3536820A and Menveo) administered to healthy adolescents and young adults 10 to 40 years of age.

Summary

EudraCT number	2017-003456-23
Trial protocol	EE FI ES FR Outside EU/EEA
Global end of trial date	22 October 2020

Results information

Result version number	v1 (current)
This version publication date	05 March 2021
First version publication date	05 March 2021

Trial information

Trial identification

Sponsor protocol code	207467

Additional study identifiers

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

Notes:

Sponsors

Sponsor organisation name	GlaxoSmithKline
Sponsor organisation address	Rue de l'Institut 89, Rixensart, Belgium, B-1330
Public contact	GSK Response Center, GlaxoSmithKline, 044 2089-904466, GSKClinicalSupportHD@gsk.com
Scientific contact	GSK Response Center, GlaxoSmithKline, 044 2089-904466, GSKClinicalSupportHD@gsk.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	10 December 2020
Is this the analysis of the primary completion data?	Yes
Primary completion date	26 July 2019
Global end of trial reached?	Yes
Global end of trial date	22 October 2020
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

• To demonstrate non-inferiority of the MenACWY liquid product aged for approximately 24 months to that of MenACWY vaccine, as measured by hSBA GMTs directed against N. meningitidis serogroup A at Day 29 after a single dose vaccination. Criterion: Non-inferiority will be concluded if lower limit of the 2-sided 95% CI for ratio of hSBA GMTs against serogroup A between the MenACWY liquid vaccine aged for approximately 24 months and MenACWY vaccine is greater than 0.5. • To demonstrate non-inferiority of the MenACWY liquid vaccine aged for approximately 30 months to that of MenACWY vaccine, as measured by hSBA GMTs directed against N. meningitidis serogroup A at Day 29 after a single dose vaccination. Criterion: Non-inferiority will be concluded if lower limit of the 2-sided 95% CI for ratio of hSBA GMTs against serogroup A between the MenACWY liquid vaccine aged for approximately 30 months and the MenACWY vaccine is greater than 0.5.

Protection of trial subjects:

All subjects were observed closely for at least 30 minutes following the administration of the vaccine, with appropriate medical treatment readily available in case of anaphylaxis. Vaccines were administered by qualified and trained personnel. Vaccines were administered only to eligible subjects that have no contraindications to any components of the vaccine. Safety was monitored for 6 months after vaccination.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	30 August 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: 217
Country: Number of subjects enrolled	Estonia: 176
Country: Number of subjects enrolled	Finland: 202
Country: Number of subjects enrolled	France: 155
Country: Number of subjects enrolled	Mexico: 135
Country: Number of subjects enrolled	Russian Federation: 267
Country: Number of subjects enrolled	South Africa: 119
Country: Number of subjects enrolled	Spain: 306
Country: Number of subjects enrolled	Turkey: 130
Worldwide total number of subjects	1707
EEA total number of subjects	839

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)	274
Adolescents (12-17 years)	417
Adults (18-64 years)	1016
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Enrollment was defined with 2 parallel groups per phase, in a 2-phase staggered design: both experimental groups subjects receiving respectively investigational vaccine aged for approximately 24 months in phase 1, and same vaccine aged for approximately 30 months in phase 2. Both comparator groups subjects receiving not aged licensed vaccine.

Pre-assignment

Screening details:

Out of the 1707 subjects enrolled in the study (inclusive of phase 1 and 2), only 1690 were exposed to the vaccination. Out of the 17 subjects excluded from study, 11 were not randomized, 5 were not administered any study treatment, 1 did not sign the informed consent form.

Pre-assignment period milestones

Number of subjects started	1707
Number of subjects completed	1690

Pre-assignment subject non-completion reasons

Reason: Number of subjects	Not randomized: 11
Reason: Number of subjects	Treatment not administered: 5
Reason: Number of subjects	Informed consent form not signed: 1

Period 1

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

Blinding implementation details:

This was an observer blind study

Arms

Are arms mutually exclusive?	Yes
Arm title	GSK3536820A ACWY_Liq24 Group

Arm description:

Healthy subjects receiving a single dose of the investigational MenACWY liquid vaccine formulation aged for approximately 24 months, at Day 1 in the Study Phase1

Arm type	Experimental
Investigational medicinal product name	MenACWY liquid
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection
Routes of administration	Intramuscular use

Dosage and administration details:

1 dose administered on day 1 to all subjects in the experimental group

Arm title	ACWY_1 Group

Arm description:

Healthy subjects receiving a single dose of the licensed GSK' MenACWY vaccine formulation (Menveo), not aged, at Day 1 in the Study Phase1.

Arm type	Active comparator

Investigational medicinal product name	MenACWY
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Powder and solution for solution for injection
Routes of administration	Intramuscular use

Dosage and administration details:

1 dose administered on day 1 to all subjects in the comparator group

Arm title	GSK3536820A ACWY_Liq30 Group

Arm description:

Healthy subjects receiving a single dose of the investigational MenACWY liquid vaccine formulation aged for approximately 30 months, at Day 1 in the Study Phase 2.

Arm type	Experimental
Investigational medicinal product name	MenACWY liquid
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection
Routes of administration	Intramuscular use

Dosage and administration details:

1 dose administered on day 1 to all subjects in the experimental group

Arm title	ACWY_2 Group

Arm description:

Healthy subjects receiving a single dose of the licensed GSK' MenACWY vaccine formulation (Menveo), not aged, at Day 1 in the Study Phase 2.

Arm type	Active comparator
Investigational medicinal product name	MenACWY
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Powder and solution for solution for injection
Routes of administration	Intramuscular use

Dosage and administration details:

1 dose administered on day 1 to all subjects in the comparator group

Number of subjects in period 1[1]	GSK3536820A ACWY_Liq24 Group	ACWY_1 Group	GSK3536820A ACWY_Liq30 Group
Started	420	424	427
Completed	419	424	423
Not completed	1	0	4
Unknown reason	-	-	2
Consent withdrawn by subject	-	-	1
Lost to follow-up	1	-	1

Number of subjects in period 1[1]	ACWY_2 Group
Started	419
Completed	418
Not completed	1
Unknown reason	-

Consent withdrawn by subject	-
Lost to follow-up	1

Notes:

[1] - The number of subjects reported to be in the baseline period are not the same as the worldwide number enrolled in the trial. It is expected that these numbers will be the same.

Justification: Number of subjects reported in the baseline period are the actual number of subjects who were vaccinated, as compared to the number enrolled (started) in the study.

Baseline characteristics

Reporting groups	
Reporting group title	GSK3536820A ACWY_Liq24 Group
Reporting group description:	
Healthy subjects receiving a single dose of the investigational MenACWY liquid vaccine formulation aged for approximately 24 months, at Day 1 in the Study Phase1	
Reporting group title	ACWY_1 Group
Reporting group description:	
Healthy subjects receiving a single dose of the licensed GSK' MenACWY vaccine formulation (Menveo), not aged, at Day 1 in the Study Phase1.	
Reporting group title	GSK3536820A ACWY_Liq30 Group
Reporting group description:	
Healthy subjects receiving a single dose of the investigational MenACWY liquid vaccine formulation aged for approximately 30 months, at Day 1 in the Study Phase 2.	
Reporting group title	ACWY_2 Group
Reporting group description:	
Healthy subjects receiving a single dose of the licensed GSK' MenACWY vaccine formulation (Menveo), not aged, at Day 1 in the Study Phase 2.	

Reporting group values	GSK3536820A ACWY_Liq24 Group	ACWY_1 Group	GSK3536820A ACWY_Liq30 Group
Number of subjects	420	424	427
Age categorical Units: Subjects			
Age continuous Units: years			
arithmetic mean	22.5	22.2	22.3
standard deviation	± 9.4	± 9.6	± 9.8
Sex: Female, Male Units: Participants			
Female	232	242	259
Male	188	182	168
Race/Ethnicity, Customized Units: Subjects			
American Indian Or Alaska Native	0	1	1
Asian	4	4	2
Black Or African American	26	22	30
Other	58	54	83
White	332	343	311

Reporting group values	ACWY_2 Group	Total	
Number of subjects	419	1690	
Age categorical Units: Subjects			
Age continuous Units: years			
arithmetic mean	22.0		

standard deviation	± 9.3	-	

Sex: Female, Male Units: Participants			
Female	228	961	
Male	191	729	
Race/Ethnicity, Customized Units: Subjects			
American Indian Or Alaska Native	2	4	
Asian	3	13	
Black Or African American	26	104	
Other	84	279	
White	304	1290	

End points

End points reporting groups

Reporting group title	GSK3536820A ACWY_Liq24 Group
Reporting group description:	
Healthy subjects receiving a single dose of the investigational MenACWY liquid vaccine formulation aged for approximately 24 months, at Day 1 in the Study Phase1	
Reporting group title	ACWY_1 Group
Reporting group description:	
Healthy subjects receiving a single dose of the licensed GSK' MenACWY vaccine formulation (Menveo), not aged, at Day 1 in the Study Phase1.	
Reporting group title	GSK3536820A ACWY_Liq30 Group
Reporting group description:	
Healthy subjects receiving a single dose of the investigational MenACWY liquid vaccine formulation aged for approximately 30 months, at Day 1 in the Study Phase 2.	
Reporting group title	ACWY_2 Group
Reporting group description:	
Healthy subjects receiving a single dose of the licensed GSK' MenACWY vaccine formulation (Menveo), not aged, at Day 1 in the Study Phase 2.	

Primary: Adjusted Human Serum Bactericidal Activity (hSBA) Geometric Mean Titers (GMTs) against N. meningitidis serogroup A for each vaccine group and between-group ratios

End point title	Adjusted Human Serum Bactericidal Activity (hSBA) Geometric Mean Titers (GMTs) against N. meningitidis serogroup A for each vaccine group and between-group ratios
End point description:	
hSBA titers against N. meningitidis serogroup A are calculated in terms of GMTs adjusted for pre-vaccination titer. Analysis is performed on the per protocol set for immunogenicity that includes subjects who received the vaccine did not have any protocol deviation leading to exclusion , who were not excluded due to other reasons defined prior to unblinding or analysis and had available immuno data for any serogroup and time point considered.	
End point type	Primary
End point timeframe:	
At Day 29	

End point values	GSK3536820A ACWY_Liq24 Group	ACWY_1 Group	GSK3536820A ACWY_Liq30 Group	ACWY_2 Group
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	363	373	356	349
Units: Titers				
geometric mean (confidence interval 95%)	386.66 (319.47 to 467.97)	318.34 (264.14 to 383.67)	387.06 (322.72 to 464.24)	348.89 (290.09 to 419.61)

Statistical analyses

Statistical analysis title	Non-inferiority-MenACWYliq24 vs MenACWY

Statistical analysis description:

To demonstrate non-inferiority of the MenACWY liquid vaccine aged for approximately 24 months to that of currently licensed MenACWY vaccine, as measured by the adjusted hSBA GMTs directed against N. meningitidis serogroup A at Day 29 after a single dose vaccination

Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	736
Analysis specification	Pre-specified
Analysis type	
Method	ANCOVA
Parameter estimate	GMT ratio
Point estimate	1.21
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.94
upper limit	1.57

Statistical analysis title	Non-inferiority-MenACWYliq30 vs MenACWY

Statistical analysis description:

To demonstrate non-inferiority of the MenACWY liquid vaccine aged for approximately 30 months to that of currently licensed MenACWY vaccine, as measured by the adjusted hSBA GMTs directed against N. meningitidis serogroup A at Day 29 after a single dose vaccination.

Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	705
Analysis specification	Pre-specified
Analysis type	
Method	ANCOVA
Parameter estimate	GMT ratio
Point estimate	1.11
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.87
upper limit	1.42

Secondary: hSBA GMTs against each of the N.meningitidis serogroups A,C,W and Y for each vaccine group and between-group ratios

End point title	hSBA GMTs against each of the N.meningitidis serogroups A,C,W and Y for each vaccine group and between-group ratios

End point description:

hSBA titers were calculated in terms of GMTs, at Day 1 and Day 29, against each of the N. meningitidis serogroup A, C, W and Y. Analysis is performed on the per protocol set for immunogenicity that includes subjects who received the vaccine did not have any protocol deviation leading to exclusion , who were not excluded due to other reasons defined prior to unblinding or analysis and had available immuno data for any serogroup and time point considered.

End point type	Secondary

End point timeframe:

At Day 1 and Day 29

End point values	GSK3536820A ACWY_Liq24 Group	ACWY_1 Group	GSK3536820A ACWY_Liq30 Group	ACWY_2 Group
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	394	398	395	392
Units: Titers				
geometric mean (confidence interval 95%)				
Meningitis A,Day 1(N=381,389,377,374)	3.01 (2.69 to 3.36)	2.91 (2.60 to 3.24)	3.34 (2.94 to 3.79)	3.16 (2.78 to 3.59)
Meningitis A,Day 29(N=363,373,356,349)	388.53 (320.61 to 470.84)	319.06 (264.39 to 385.03)	394.16 (326.72 to 475.50)	349 (288.45 to 422.27)
Meningitis C,Day 1(N=394,395,395,392)	8.59 (7.40 to 9.98)	7.06 (6.09 to 8.20)	9.05 (7.77 to 10.53)	8.7 (7.46 to 10.14)
Meningitis C,Day 29(N=385,377,376,377)	143.69 (109.13 to 189.20)	157.74 (119.39 to 208.42)	244.44 (182.20 to 327.96)	208.34 (154.96 to 280.11)
Meningitis W,Day 1(N=379,396,382,376)	6.23 (5.17 to 7.50)	5.8 (4.83 to 6.95)	5.69 (4.75 to 6.82)	5.74 (4.78 to 6.90)
Meningitis W,Day 29(N=372,388,374,366)	62.73 (49.93 to 78.81)	63.92 (51.11 to 79.94)	80.51 (64.66 to 100.24)	73.08 (58.45 to 91.36)
Meningitis Y,Day 1(N=390,398,391,385)	4.39 (3.78 to 5.10)	4.21 (3.63 to 4.89)	4.14 (3.58 to 4.79)	4.19 (3.62 to 4.86)
Meningitis Y,Day 29(N=379,390,386,377)	116.42 (94.03 to 144.15)	105.11 (85.17 to 129.71)	112.95 (91.55 to 139.34)	118.04 (95.27 to 146.25)

Statistical analyses

Statistical analysis title	Serogroup C-Day 29,ACWYliq24 versus ACWY
Statistical analysis description:	
Between-groups ratio of adjusted hSBA GMTs and its 95% CI, between vaccine groups GSK3536820A ACWY_Liq24 and ACWY_1, at Day 29 against serogroup C	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	792
Analysis specification	Pre-specified
Analysis type	
Method	ANCOVA
Parameter estimate	GMT ratio
Point estimate	0.84
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.58
upper limit	1.19

Statistical analysis title	Serogroup W-Day 29,ACWYliq24 versus ACWY

Statistical analysis description:	
Between-groups ratio of adjusted hSBA GMTs and its 95% CI, between vaccine groups GSK3536820A ACWY_Liq24 and ACWY_1, at Day 29 against serogroup W	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	792
Analysis specification	Pre-specified
Analysis type	
Method	ANCOVA
Parameter estimate	GMT ratio
Point estimate	0.94
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.72
upper limit	1.24

Statistical analysis title	Serogroup Y-Day 29,ACWYliq24 versus ACWY
Statistical analysis description:	
Between-groups ratio of adjusted hSBA GMTs and its 95% CI, between vaccine groups GSK3536820A ACWY_Liq24 and ACWY_1, at Day 29 against serogroup Y	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	792
Analysis specification	Pre-specified
Analysis type	
Method	ANCOVA
Parameter estimate	GMT ratio
Point estimate	1.09
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.82
upper limit	1.44

Statistical analysis title	Serogroup C-Day 29,ACWYLiq30 versus ACWY
Statistical analysis description:	
Between-groups ratio of adjusted hSBA GMTs and its 95% CI, between vaccine groups GSK3536820A ACWY_Liq30 and ACWY_2, at Day 29 against serogroup C	
Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	787
Analysis specification	Pre-specified
Analysis type	
Method	ANCOVA
Parameter estimate	GMT ratio
Point estimate	1.14
Confidence interval	
level	95 %
sides	2-sided

lower limit	0.79
upper limit	1.64

Statistical analysis title	Serogroup W-Day 29,ACWYliq30 versus ACWY
Statistical analysis description:	
Between-groups ratio of adjusted hSBA GMTs and its 95% CI, between vaccine groups GSK3536820A ACWY_Liq30 and ACWY_2, at Day 29 against serogroup W	
Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	787
Analysis specification	Pre-specified
Analysis type	
Method	ANCOVA
Parameter estimate	GMT ratio
Point estimate	1.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.84
upper limit	1.45

Statistical analysis title	Serogroup Y-Day 29,ACWYliq30 versus ACWY
Statistical analysis description:	
Between-groups ratio of adjusted hSBA GMTs and its 95% CI, between vaccine groups GSK3536820A ACWY_Liq30 and ACWY_2, at Day 29 against serogroup Y	
Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	787
Analysis specification	Pre-specified
Analysis type	
Method	ANCOVA
Parameter estimate	GMT ratio
Point estimate	0.96
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.72
upper limit	1.26

Secondary: Within-group Geometric Mean Ratios (GMRs) of GMTs against each of the N.meningitidis serogroups A,C,W and Y for each vaccine group

End point title	Within-group Geometric Mean Ratios (GMRs) of GMTs against each of the N.meningitidis serogroups A,C,W and Y for each vaccine group

End point description:

Within-group ratios of hSBA GMTs against each of the N.meningitidis serogroups A, C, W and Y at Day 29 compared to Day 1. Analysis is performed on the per protocol set for immunogenicity that includes subjects who received the vaccine did not have any protocol deviation leading to exclusion , who were

not excluded due to other reasons defined prior to unblinding or analysis and had available immuno data for any serogroup and time point considered.

End point type	Secondary

End point timeframe:

At Day 29

End point values	GSK3536820A ACWY_Liq24 Group	ACWY_1 Group	GSK3536820A ACWY_Liq30 Group	ACWY_2 Group
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	385	390	386	377
Units: Ratio				
geometric mean (confidence interval 95%)				
Meningitis A(N=363,373,356,349)	130.33 (105.49 to 161.02)	108.39 (88.14 to 133.30)	114.66 (93.75 to 140.22)	106.79 (87.05 to 131.01)
Meningitis C(N=385,377,376,377)	17.01 (13.00 to 22.25)	21.68 (16.52 to 28.46)	26.69 (20.22 to 35.22)	23.85 (18.04 to 31.54)
Meningitis W(N=372,388,374,366)	9.81 (7.84 to 12.27)	10.77 (8.65 to 13.41)	13.8 (11.08 to 17.19)	12.48 (9.98 to 15.61)
Meningitis Y(N=379,390,386,377)	26.53 (21.14 to 33.28)	25.23 (20.18 to 31.54)	27.18 (21.66 to 34.10)	28.49 (22.60 to 35.92)

Statistical analyses

No statistical analyses for this end point

Secondary: Percentages of subjects with ≥4 fold rise in hSBA antibody titers for each of the N.meningitidis serogroups A, C,W and Y for each vaccine group and between-group differences

End point title	Percentages of subjects with ≥4 fold rise in hSBA antibody titers for each of the N.meningitidis serogroups A, C,W and Y for each vaccine group and between-group differences

End point description:

The percentages of subjects with a ≥ 4-fold rise in post-vaccination hSBA (at Day 29 compared to Day 1) and associated 2-sided 95% Clopper-Pearson CIs are computed by group and N. meningitidis serogroups A, C, W and Y. A 4-fold rise in the hSBA titers is defined as: - for individuals, whose pre-vaccination titers are < the LOD (limit of detection), the post-vaccination titers must be ≥ 4-fold the LOD or ≥ the LLOQ (lower limit of quantitation) whichever is greater; - for individuals whose pre-vaccination titers are ≥ the LOD and ≤ the LLOQ, the post-vaccination titers must be at least four times the LLOQ; - for individuals whose pre-vaccination titers are > the LLOQ, the post-vaccination titers must be at least four times the pre-vaccination titer. Analysis is performed on the per protocol set for immunogenicity.

End point type	Secondary

End point timeframe:

At Day 29

End point values	GSK3536820A ACWY_Liq24 Group	ACWY_1 Group	GSK3536820A ACWY_Liq30 Group	ACWY_2 Group
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	385	390	386	377
Units: Percentage of subjects				
number (confidence interval 95%)				
Meningitis A(N=363,373,356,349)	92.29 (89.04 to 94.81)	90.08 (86.59 to 92.92)	91.57 (88.19 to 94.24)	91.69 (88.28 to 94.36)
Meningitis C(N=385,377,376,377)	62.34 (57.29 to 67.20)	64.46 (59.39 to 69.29)	72.61 (67.80 to 77.05)	69.76 (64.85 to 74.36)
Meningitis W(N=372,388,374,366)	59.41 (54.23 to 64.44)	60.57 (55.51 to 65.46)	66.58 (61.55 to 71.34)	62.57 (57.39 to 67.54)
Meningitis Y(N=379,390,386,377)	71.77 (66.95 to 76.25)	73.33 (68.65 to 77.66)	74.35 (69.69 to 78.64)	77.19 (72.62 to 81.33)

Statistical analyses

Statistical analysis title	Serogroup A-ACWY Liq24 versus ACWY
Statistical analysis description:	
Between-group difference in percentage of subjects with a ≥ 4-fold rise in post-vaccination hSBA for N. meningitidis serogroup A at Day 29.	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	775
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	2.21
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.94
upper limit	6.4

Statistical analysis title	Serogroup C-ACWY Liq24 versus ACWY
Statistical analysis description:	
Between-group difference in percentage of subjects with a ≥ 4-fold rise in post-vaccination hSBA for N. meningitidis serogroup C at Day 29.	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	775
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	-2.12
Confidence interval	
level	95 %
sides	2-sided

lower limit	-8.94
upper limit	4.72

Statistical analysis title	Serogroup W-ACWY Liq24 versus ACWY
Statistical analysis description:	
Between-group difference in percentage of subjects with a ≥ 4-fold rise in post-vaccination hSBA for N. meningitidis serogroup W at Day 29.	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	775
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	-1.16
Confidence interval	
level	95 %
sides	2-sided
lower limit	-8.11
upper limit	5.8

Statistical analysis title	Serogroup Y-ACWY Liq24 versus ACWY
Statistical analysis description:	
Between-group difference in percentage of subjects with a ≥ 4-fold rise in post-vaccination hSBA for N. meningitidis serogroup Y at Day 29.	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	775
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	-1.57
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.88
upper limit	4.74

Statistical analysis title	Serogroup A-ACWY Liq30 versus ACWY
Statistical analysis description:	
Between-group difference in percentage of subjects with a ≥ 4-fold rise in post-vaccination hSBA for N. meningitidis serogroup A at Day 29.	
Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	763
Analysis specification	Pre-specified
Analysis type	

Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	-0.12
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.29
upper limit	4.07

Statistical analysis title	Serogroup C-ACWY Liq30 versus ACWY
Statistical analysis description:	
Between-group difference in percentage of subjects with a ≥ 4-fold rise in post-vaccination hSBA for N. meningitidis serogroup C at Day 29.	
Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	763
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	2.85
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.63
upper limit	9.3

Statistical analysis title	Serogroup W-ACWY Liq30 versus ACWY
Statistical analysis description:	
Between-group difference in percentage of subjects with a ≥ 4-fold rise in post-vaccination hSBA for N. meningitidis serogroup W at Day 29.	
Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	763
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	4.01
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.89
upper limit	10.88

Statistical analysis title	Serogroup Y-ACWY Liq30 versus ACWY

Statistical analysis description:

Between-group difference in percentage of subjects with a ≥ 4-fold rise in post-vaccination hSBA for N. meningitidis serogroup Y at Day 29.

Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	763
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	-2.84
Confidence interval	
level	95 %
sides	2-sided
lower limit	-8.91
upper limit	3.26

Secondary: Percentages of subjects with hSBA antibody titers ≥8 against each of the N.meningitidis serogroups A,C,W and Y for each vaccine group and between-group differences

End point title	Percentages of subjects with hSBA antibody titers ≥8 against each of the N.meningitidis serogroups A,C,W and Y for each vaccine group and between-group differences

End point description:

For each vaccine group the percentage of subjects with hSBA titer ≥8 , and its associated two-sided 95% Clopper-Pearson CIs are computed for each of the N. meningitidis serogroups A, C, W and Y. Analysis is performed on the per protocol set for immunogenicity that includes subjects who received the vaccine did not have any protocol deviation leading to exclusion , who were not excluded due to other reasons defined prior to unblinding or analysis and had available immuno data for any serogroup and time point considered.

End point type	Secondary

End point timeframe:

At Day 1 and Day 29

End point values	GSK3536820A ACWY_Liq24 Group	ACWY_1 Group	GSK3536820A ACWY_Liq30 Group	ACWY_2 Group
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	394	398	395	392
Units: Percentage of subjects				
number (confidence interval 95%)				
Meningitis A,Day 1(N=381,389,377,374)	12.07 (8.98 to 15.77)	10.28 (7.45 to 13.74)	13.53 (10.24 to 17.40)	12.03 (8.91 to 15.77)
Meningitis A,Day 29(N=378,384,377,367)	93.65 (90.70 to 95.89)	92.19 (89.03 to 94.67)	93.37 (90.37 to 95.66)	94.01 (91.06 to 96.21)
Meningitis C,Day 1(N=394,395,395,392)	48.48 (43.44 to 53.53)	41.52 (36.61 to 46.55)	50.63 (45.59 to 55.67)	50.26 (45.19 to 55.31)
Meningitis C,Day 29(N=388,382,379,379)	77.58 (73.10 to 81.63)	78.01 (73.52 to 82.06)	84.17 (80.10 to 87.70)	82.85 (78.67 to 86.51)
Meningitis W,Day 1(N=379,396,382,376)	31.66 (27.01 to 36.61)	28.54 (24.14 to 33.26)	28.8 (24.30 to 33.62)	30.05 (25.46 to 34.96)

Meningitis W,Day 29(N=389,392,389,384)	79.43 (75.07 to 83.34)	80.87 (76.62 to 84.64)	85.86 (82.00 to 89.17)	81.77 (77.54 to 85.50)
Meningitis Y,Day 1(N=390,398,391,385)	22.82 (18.75 to 27.31)	21.86 (17.90 to 26.25)	21.48 (17.51 to 25.89)	22.34 (18.27 to 26.83)
Meningitis Y,Day 29(N=384,392,393,386)	87.5 (83.77 to 90.64)	85.46 (81.57 to 88.80)	88.04 (84.42 to 91.08)	87.56 (83.85 to 90.69)

Statistical analyses

Statistical analysis title	Serogroup A-Day1,ACWYliq24 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥8 for the N. meningitidis serogroup A on Day 1.	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	792
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	1.79
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.69
upper limit	6.32

Statistical analysis title	Serogroup C-Day1,ACWYliq24 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥8 for the N. meningitidis serogroup C on Day 1.	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	792
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	6.96
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.01
upper limit	13.84

Statistical analysis title	Serogroup W-Day1,ACWYliq24 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥8 for the N. meningitidis	

serogroup W on Day 1.

Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	792
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	3.13
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.33
upper limit	9.58

Statistical analysis title	Serogroup Y-Day1,ACWYliq24 versus ACWY

Statistical analysis description:

Between-group difference in percentages of subjects with hSBA titer ≥8 for the N. meningitidis serogroup Y on Day 1.

Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	792
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	0.96
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.86
upper limit	6.8

Statistical analysis title	Serogroup A-Day29,ACWYliq24 versus ACWY

Statistical analysis description:

Between-group difference in percentages of subjects with hSBA titer ≥8 for the N. meningitidis serogroup A on Day 29.

Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	792
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	1.46
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.24
upper limit	5.22

Statistical analysis title	Serogroup C-Day29,ACWYliq24 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥8 for the N. meningitidis serogroup C on Day 29.	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	792
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	-0.43
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.32
upper limit	5.46

Statistical analysis title	Serogroup W-Day29,ACWYliq24 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥8 for the N. meningitidis serogroup W on Day 29.	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	792
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	-1.43
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.05
upper limit	4.18

Statistical analysis title	Serogroup Y-Day29,ACWYliq24 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥8 for the N. meningitidis serogroup Y on Day 29.	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	792
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method

Parameter estimate	Difference in percentage of subjects
Point estimate	2.04
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.81
upper limit	6.9

Statistical analysis title	Serogroup A-Day1,ACWYliq30 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥8 for the N. meningitidis serogroup A on Day 1.	
Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	787
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	1.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.32
upper limit	6.33

Statistical analysis title	Serogroup C-Day1,ACWYliq30 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥8 for the N. meningitidis serogroup C on Day 1.	
Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	787
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	0.38
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.6
upper limit	7.35

Statistical analysis title	Serogroup W-Day1,ACWYliq30 versus ACWY
Statistical analysis description:	

Between-group difference in percentages of subjects with hSBA titer ≥8 for the N. meningitidis serogroup W on Day 1.

Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	787
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	-1.26
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.75
upper limit	5.23

Statistical analysis title	Serogroup Y-Day1,ACWYliq30 versus ACWY

Statistical analysis description:

Between-group difference in percentages of subjects with hSBA titer ≥8 for the N. meningitidis serogroup Y on Day 1.

Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	787
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	-0.85
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.69
upper limit	4.98

Statistical analysis title	Serogroup A-Day29,ACWYliq30 versus ACWY

Statistical analysis description:

Between-group difference in percentages of subjects with hSBA titer ≥8 for the N. meningitidis serogroup A on Day 29.

Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	787
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	-0.64
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.24

upper limit	2.96

Statistical analysis title	Serogroup C-Day29,ACWYliq30 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥8 for the N. meningitidis serogroup C on Day 29.	
Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	787
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	1.32
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.99
upper limit	6.64

Statistical analysis title	Serogroup W-Day29,ACWYliq30 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥8 the N. meningitidis serogroup W on Day 29.	
Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	787
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	4.09
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.11
upper limit	9.33

Statistical analysis title	Serogroup Y-Day29,ACWYliq30 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥8 for the N. meningitidis serogroup Y on Day 29.	
Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	787
Analysis specification	Pre-specified
Analysis type	

Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	0.48
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.16
upper limit	5.13

Secondary: Percentages of subjects with hSBA titers ≥LLOQ against each of the N. meningitidis serogroups A, C, W and Y for each vaccine group, and between-group differences

End point title	Percentages of subjects with hSBA titers ≥LLOQ against each of the N. meningitidis serogroups A, C, W and Y for each vaccine group, and between-group differences

End point description:

For each vaccine group the percentages of subjects with hSBA titer ≥LLOQ, and its associated two-sided 95% Clopper-Pearson CIs are computed for each of the N. meningitidis serogroups A, C, W and Y. Analysis is performed on the per protocol set for immunogenicity that includes subjects who received the vaccine did not have any protocol deviation leading to exclusion , who were not excluded due to other reasons defined prior to unblinding or analysis and had available immuno data for any serogroup and time point considered.

End point type	Secondary

End point timeframe:

At Day 1 and Day 29

End point values	GSK3536820A ACWY_Liq24 Group	ACWY_1 Group	GSK3536820A ACWY_Liq30 Group	ACWY_2 Group
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	394	398	395	392
Units: Percentage of subjects				
number (confidence interval 95%)				
Meningitis A,Day 1(N=381,389,377,374)	12.86 (9.67 to 16.64)	11.57 (8.56 to 15.17)	15.38 (11.89 to 19.43)	13.64 (10.32 to 17.54)
Meningitis A,Day 29(N=378,384,377,367)	93.92 (91.01 to 96.10)	92.19 (89.03 to 94.67)	93.37 (90.37 to 95.66)	94.01 (91.06 to 96.21)
Meningitis C,Day 1(N=394,395,395,392)	55.84 (50.78 to 60.81)	48.61 (43.58 to 53.66)	61.01 (56.01 to 65.85)	57.14 (52.08 to 62.10)
Meningitis C,Day 29(N=388,382,379,379)	79.38 (75.01 to 83.30)	80.37 (76.02 to 84.23)	84.7 (80.67 to 88.17)	84.7 (80.67 to 88.17)
Meningitis W,Day 1(N=379,396,382,376)	32.45 (27.76 to 37.42)	28.54 (24.14 to 33.26)	29.32 (24.80 to 34.16)	30.05 (25.46 to 34.96)
Meningitis W,Day 29(N=389,392,389,384)	79.43 (75.07 to 83.34)	80.87 (76.62 to 84.64)	85.86 (82.00 to 89.17)	81.77 (77.54 to 85.50)
Meningitis Y,Day 1(N=390,398,391,385)	24.36 (20.18 to 28.93)	22.86 (18.83 to 27.31)	21.74 (17.75 to 26.16)	22.86 (18.76 to 27.38)
Meningitis Y,Day 29(N=384,392,393,386)	88.28 (84.63 to 91.32)	86.22 (82.41 to 89.48)	88.3 (84.70 to 91.30)	87.56 (83.85 to 90.69)

Statistical analyses

Statistical analysis title	Serogroup A-Day1,ACWY liq24 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥LLOQ for the N. meningitidis serogroup A at Day 1	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	792
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	1.29
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.37
upper limit	5.99

Statistical analysis title	Serogroup C-Day1,ACWY liq24 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥LLOQ for the N. meningitidis serogroup C at Day 1	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	792
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	7.23
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.25
upper limit	14.13

Statistical analysis title	Serogroup W-Day1,ACWY liq24 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥LLOQ for the N. meningitidis serogroup W at Day 1	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group

Number of subjects included in analysis	792
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	3.92
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.57
upper limit	10.39

Statistical analysis title	Serogroup Y-Day1,ACWY liq24 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥LLOQ for the N. meningitidis serogroup Y at Day 1	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	792
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	1.49
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.44
upper limit	7.44

Statistical analysis title	Serogroup A-Day29,ACWY liq24 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥LLOQ for the N. meningitidis serogroup A at Day 29	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	792
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	1.73
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.94
upper limit	5.46

Statistical analysis title	Serogroup C-Day29,ACWY liq24 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥LLOQ for the N. meningitidis serogroup C at Day 29	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	792
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	-0.99
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.66
upper limit	4.7

Statistical analysis title	Serogroup W-Day29,ACWY liq24 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥LLOQ for the N. meningitidis serogroup W at Day 29	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	792
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	-1.43
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.05
upper limit	4.18

Statistical analysis title	Serogroup Y-Day29,ACWY liq24 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥LLOQ for the N. meningitidis serogroup Y at Day 29	
Comparison groups	GSK3536820A ACWY_Liq24 Group v ACWY_1 Group
Number of subjects included in analysis	792
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method

Parameter estimate	Difference in percentage of subjects
Point estimate	2.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.67
upper limit	6.8

Statistical analysis title	Serogroup A-Day1,ACWY liq30 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥LLOQ for the N. meningitidis serogroup A at Day 1	
Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	787
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	1.75
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.32
upper limit	6.83

Statistical analysis title	Serogroup C-Day1,ACWY liq30 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥LLOQ for the N. meningitidis serogroup C at Day 1	
Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	787
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	3.87
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3
upper limit	10.71

Statistical analysis title	Serogroup W-Day1,ACWY liq30 versus ACWY
Statistical analysis description:	

Between-group difference in percentages of subjects with hSBA titer ≥LLOQ for the N. meningitidis serogroup W at Day 1

Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	787
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	-0.73
Confidence interval	
level	95 %
sides	2-sided
lower limit	-7.24
upper limit	5.77

Statistical analysis title	Serogroup Y-Day1,ACWY liq30 versus ACWY

Statistical analysis description:

Between-group difference in percentages of subjects with hSBA titer ≥LLOQ for the N. meningitidis serogroup Y at Day 1

Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	787
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	-1.12
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.99
upper limit	4.75

Statistical analysis title	Serogroup A-Day29,ACWY liq30 versus ACWY

Statistical analysis description:

Between-group difference in percentages of subjects with hSBA titer ≥LLOQ for the N. meningitidis serogroup A at Day 29

Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	787
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	-0.64
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.24

upper limit	2.96

Statistical analysis title	Serogroup C-Day29,ACWY liq30 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥LLOQ for the N. meningitidis serogroup C at Day 29	
Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	787
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	0
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.16
upper limit	5.16

Statistical analysis title	Serogroup W-Day29,ACWY liq30 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥LLOQ for the N. meningitidis serogroup W at Day 29	
Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	787
Analysis specification	Pre-specified
Analysis type	
Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	4.09
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1.11
upper limit	9.33

Statistical analysis title	Serogroup Y-Day29,ACWY liq30 versus ACWY
Statistical analysis description:	
Between-group difference in percentages of subjects with hSBA titer ≥LLOQ for the N. meningitidis serogroup Y at Day 29	
Comparison groups	GSK3536820A ACWY_Liq30 Group v ACWY_2 Group
Number of subjects included in analysis	787
Analysis specification	Pre-specified
Analysis type	

Method	Miettinen and Nurminen score method
Parameter estimate	Difference in percentage of subjects
Point estimate	0.73
Confidence interval	
level	95 %
sides	2-sided
lower limit	-3.88
upper limit	5.37

Secondary: Number of subjects reported with any unsolicited adverse events (AEs) within 30 minutes after vaccination

End point title	Number of subjects reported with any unsolicited adverse events (AEs) within 30 minutes after vaccination

End point description:

An unsolicited adverse event (AE) is defined as any untoward medical occurrence in a subject or clinical investigation subject administered with a pharmaceutical product at any dose that does not necessarily have to have a causal relationship with this treatment. Analysis was performed on the unsolicited safety set that includes all enrolled subjects who received a study vaccination and reported unsolicited adverse events data for the defined period.

End point type	Secondary

End point timeframe:

Within 30 minutes after vaccination at Day 1

End point values	GSK3536820A ACWY_Liq24 Group	ACWY_1 Group	GSK3536820A ACWY_Liq30 Group	ACWY_2 Group
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	420	424	427	419
Units: Participants	2	2	6	6

Statistical analyses

No statistical analyses for this end point

Secondary: Number of subjects reported with solicited local and systemic AEs

End point title	Number of subjects reported with solicited local and systemic AEs

End point description:

Assessed solicited local AEs were erythema, induration and pain at injection site. Assessed solicited systemic AEs were Arthralgia, chills, fatigue, fever (body temperature ≥38.0°C), headache, loss of appetite, myalgia and nausea. Analysis was performed on the solicited safety set that includes all enrolled subjects who received a study vaccination and reported solicited adverse events data for the defined period.

End point type	Secondary

End point timeframe:

From Day 1 (6 hours) to Day 7 after vaccination

End point values	GSK3536820A ACWY_Liq24 Group	ACWY_1 Group	GSK3536820A ACWY_Liq30 Group	ACWY_2 Group
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	418	422	425	419
Units: Participants				
Arthralgia	45	50	49	40
Chills	75	79	78	56
Erythema	48	51	58	40
Fatigue	174	175	149	147
Fever (Temperature >= 38 C)	15	18	15	12
Headache	164	151	169	157
Induration	50	51	54	39
Loss of Appetite	53	54	63	34
Myalgia	60	59	58	65
Nausea	54	48	42	46
Pain	189	181	202	192

Statistical analyses

No statistical analyses for this end point

Secondary: Number of subjects reported with other indicators of reactogenicity

End point title	Number of subjects reported with other indicators of reactogenicity

End point description:

Number of subjects reporting other indicators of reactogenicity such as use of analgesics/antipyretics within 7 days after any vaccination. Analysis was performed on the solicited safety set that includes all enrolled subjects who received a study vaccination and reported solicited adverse events data for the defined period.

End point type	Secondary

End point timeframe:

From Day 1 to Day 7 after vaccination

End point values	GSK3536820A ACWY_Liq24 Group	ACWY_1 Group	GSK3536820A ACWY_Liq30 Group	ACWY_2 Group
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	418	422	425	419
Units: Participants				
Analgesic/Antipyretic Prevention, No	357	374	366	369
Analgesic/Antipyretic Prevention, Yes	61	48	59	50
Analgesic/Antipyretic Treatment, No	328	340	349	350
Analgesic/Antipyretic Treatment, Yes	90	82	76	69

Statistical analyses

No statistical analyses for this end point

Secondary: Number of subjects reported with any unsolicited AEs within 29 days after vaccination

End point title	Number of subjects reported with any unsolicited AEs within 29 days after vaccination

End point description:

An unsolicited adverse event (AE) is defined as any untoward medical occurrence in a subject or clinical investigation subject administered with a pharmaceutical product at any dose that does not necessarily have to have a causal relationship with this treatment. Analysis was performed on the unsolicited safety set that includes all enrolled subjects who received a study vaccination and reported unsolicited adverse events data for the defined period.

End point type	Secondary

End point timeframe:

From Day 1 to Day 29 after vaccination

End point values	GSK3536820A ACWY_Liq24 Group	ACWY_1 Group	GSK3536820A ACWY_Liq30 Group	ACWY_2 Group
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	420	424	427	419
Units: Participants	77	91	101	97

Statistical analyses

No statistical analyses for this end point

Secondary: Number of subjects reported with serious adverse events (SAEs), AEs leading to withdrawal and medically attended AEs

End point title	Number of subjects reported with serious adverse events (SAEs), AEs leading to withdrawal and medically attended AEs

End point description:

Medically attended AEs are defined as events for which the subject received medical attention defined as hospitalization, an emergency room visit, or a visit to or from medical personnel (medical doctor) for any reason. Any medically attended AE(s) is occurrence of any medically attended AE(s) regardless of intensity grade or relation to vaccination. Serious adverse event is any congenital anomaly/birth defect in the offspring of a study subject or any untoward medical occurrence that results in death or life threatening or requires hospitalization or results in disability or incapacity. Analysis was performed on the unsolicited safety set that includes all enrolled subjects who received a study vaccination and reported unsolicited adverse events data for the defined period.

End point type	Secondary

End point timeframe:

End point values	GSK3536820A ACWY_Liq24 Group	ACWY_1 Group	GSK3536820A ACWY_Liq30 Group	ACWY_2 Group
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	420	424	427	419
Units: Participants				
Leading to withdrawal	0	0	0	0
SAEs	4	1	4	4
MAEs	88	69	81	77

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information	
Timeframe for reporting adverse events:	
Solicited AEs were collected from Day 1 to Day 7 after vaccination and Unsolicited AEs from Day 1 to Day 29 after vaccination. SAEs were collected from Day 1 to Day 181 (during the entire study period)	
Assessment type	Systematic

Dictionary used	
Dictionary name	MedDRA
Dictionary version	23.1

Reporting groups	
Reporting group title	GSK3536820A ACWY_Liq24 Group
Reporting group description:	
Healthy subjects receiving a single dose of the investigational MenACWY liquid vaccine formulation aged for approximately 24 months, at Day 1 in the Study Phase1	
Reporting group title	ACWY_1 Group
Reporting group description:	
Healthy subjects receiving a single dose of the licensed GSK' MenACWY vaccine formulation (Menveo), not aged, at Day 1 in the Study Phase1.	
Reporting group title	GSK3536820A ACWY_Liq30 Group
Reporting group description:	
Healthy subjects receiving a single dose of the investigational MenACWY liquid vaccine formulation aged for approximately 30 months, at Day 1 in the Study Phase 2.	
Reporting group title	ACWY_2 Group
Reporting group description:	
Healthy subjects receiving a single dose of the licensed GSK' MenACWY vaccine formulation (Menveo), not aged, at Day 1 in the Study Phase 2.	

Serious adverse events	GSK3536820A ACWY_Liq24 Group	ACWY_1 Group	GSK3536820A ACWY_Liq30 Group
Total subjects affected by serious adverse events			
subjects affected / exposed	4 / 420 (0.95%)	1 / 424 (0.24%)	4 / 427 (0.94%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events			
Injury, poisoning and procedural complications			
Post procedural haemorrhage			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Soft tissue injury			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (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

Tibia fracture			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Malignant melanoma			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Congenital, familial and genetic disorders			
Phimosis			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Nervous system disorders			
Tension headache			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pregnancy, puerperium and perinatal conditions			
Abortion spontaneous			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Psychiatric disorders			
Depression			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastrointestinal disorders			
Appendicitis noninfective			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (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

Reproductive system and breast disorders			
Adnexa uteri pain			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Ovarian cyst ruptured			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (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
Infections and infestations			
Otitis externa			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Tooth abscess			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (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	ACWY_2 Group		
Total subjects affected by serious adverse events			
subjects affected / exposed	4 / 419 (0.95%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events			
Injury, poisoning and procedural complications			
Post procedural haemorrhage			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Soft tissue injury			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Tibia fracture			
subjects affected / exposed	0 / 419 (0.00%)		

occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Malignant melanoma			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Congenital, familial and genetic disorders			
Phimosis			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Nervous system disorders			
Tension headache			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Pregnancy, puerperium and perinatal conditions			
Abortion spontaneous			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Psychiatric disorders			
Depression			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Gastrointestinal disorders			
Appendicitis noninfective			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Reproductive system and breast disorders			

Adnexa uteri pain			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Ovarian cyst ruptured			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			
Otitis externa			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Tooth abscess			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		

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

Non-serious adverse events	GSK3536820A ACWY_Liq24 Group	ACWY_1 Group	GSK3536820A ACWY_Liq30 Group
Total subjects affected by non-serious adverse events			
subjects affected / exposed	312 / 420 (74.29%)	314 / 424 (74.06%)	324 / 427 (75.88%)
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Skin papilloma			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0
Immune system disorders			
Allergy to arthropod sting			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Drug hypersensitivity			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1
General disorders and administration site conditions			

Administration site erythema			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Administration site induration			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Administration site pain			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Application site warmth			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0
Application site erythema			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Chills			
subjects affected / exposed	77 / 420 (18.33%)	79 / 424 (18.63%)	78 / 427 (18.27%)
occurrences (all)	78	81	78
Discomfort			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1
Facial pain			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1
Fatigue			
subjects affected / exposed	175 / 420 (41.67%)	175 / 424 (41.27%)	150 / 427 (35.13%)
occurrences (all)	175	179	157
Injection site erythema			
subjects affected / exposed	50 / 420 (11.90%)	51 / 424 (12.03%)	59 / 427 (13.82%)
occurrences (all)	51	52	68
Induration			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Injection site haematoma			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0

Injection site induration			
subjects affected / exposed	52 / 420 (12.38%)	51 / 424 (12.03%)	54 / 427 (12.65%)
occurrences (all)	53	51	62
Injection site oedema			
subjects affected / exposed	1 / 420 (0.24%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	1	1	0
Injection site pain			
subjects affected / exposed	190 / 420 (45.24%)	182 / 424 (42.92%)	205 / 427 (48.01%)
occurrences (all)	193	183	214
Injection site pruritus			
subjects affected / exposed	2 / 420 (0.48%)	3 / 424 (0.71%)	2 / 427 (0.47%)
occurrences (all)	3	3	2
Injection site rash			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1
Injection site scab			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Malaise			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	1	0	1
Oedema			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0
Pain			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	2 / 427 (0.47%)
occurrences (all)	0	0	2
Pyrexia			
subjects affected / exposed	20 / 420 (4.76%)	19 / 424 (4.48%)	19 / 427 (4.45%)
occurrences (all)	21	20	19
Vaccination site pain			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	1 / 427 (0.23%)
occurrences (all)	0	1	1
Vessel puncture site induration			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0

Vessel puncture site pain			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Psychiatric disorders			
Bulimia nervosa			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Insomnia			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Irritability			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Reproductive system and breast disorders			
Dysfunctional uterine bleeding			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Dysmenorrhoea			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	1	0	1
Endometriosis			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Polycystic ovaries			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Injury, poisoning and procedural complications			
Animal bite			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Contusion			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1
Fall			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0

Hand fracture			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Joint dislocation			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1
Ligament sprain			
subjects affected / exposed	1 / 420 (0.24%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	1	1	0
Limb injury			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0
Cardiac disorders			
Tachycardia			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Respiratory, thoracic and mediastinal disorders			
Adenoidal hypertrophy			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0
Cough			
subjects affected / exposed	2 / 420 (0.48%)	0 / 424 (0.00%)	2 / 427 (0.47%)
occurrences (all)	2	0	2
Dysphonia			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1
Epistaxis			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0
Nasal congestion			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	1	0	1
Nasal obstruction			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1
Oropharyngeal pain			

subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	3 / 427 (0.70%)
occurrences (all)	0	1	3
Pharyngeal erythema			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Respiratory disorder			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Rhinitis allergic			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0
Rhinorrhoea			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	3 / 427 (0.70%)
occurrences (all)	1	0	3
Sneezing			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1
Blood and lymphatic system disorders			
Anaemia			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Lymphadenopathy			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1
Nervous system disorders			
Burning sensation			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Dizziness			
subjects affected / exposed	1 / 420 (0.24%)	1 / 424 (0.24%)	1 / 427 (0.23%)
occurrences (all)	2	1	1
Epilepsy			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Generalised tonic-clonic seizure			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)

occurrences (all)	0	1	0
Headache			
subjects affected / exposed	168 / 420 (40.00%)	155 / 424 (36.56%)	178 / 427 (41.69%)
occurrences (all)	177	164	200
Intercostal neuralgia			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Migraine			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Presyncope			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	1 / 427 (0.23%)
occurrences (all)	0	1	1
Paraesthesia			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0
Sciatica			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1
Somnolence			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Tremor			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Eye disorders			
Eye paraesthesia			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Vision blurred			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	2	0	0
Ear and labyrinth disorders			
Ear pain			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1

Gastrointestinal disorders			
Abdominal distension			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1
Abdominal pain			
subjects affected / exposed	4 / 420 (0.95%)	4 / 424 (0.94%)	4 / 427 (0.94%)
occurrences (all)	4	4	4
Abdominal pain lower			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Abdominal pain upper			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Dental caries			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Diarrhoea			
subjects affected / exposed	3 / 420 (0.71%)	0 / 424 (0.00%)	6 / 427 (1.41%)
occurrences (all)	4	0	6
Enteritis			
subjects affected / exposed	1 / 420 (0.24%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	1	1	0
Gastritis			
subjects affected / exposed	1 / 420 (0.24%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	1	1	0
Nausea			
subjects affected / exposed	54 / 420 (12.86%)	48 / 424 (11.32%)	43 / 427 (10.07%)
occurrences (all)	56	49	45
Odynophagia			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	2 / 427 (0.47%)
occurrences (all)	0	1	2
Oesophagitis			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0
Toothache			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)

occurrences (all)	1	0	0
Vomiting			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	1	0	1
Renal and urinary disorders			
Hypertonic bladder			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0
Skin and subcutaneous tissue disorders			
Dermal cyst			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0
Dermatitis			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Dermatitis allergic			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1
Dermatitis atopic			
subjects affected / exposed	2 / 420 (0.48%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	2	0	0
Dermatitis contact			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Hand dermatitis			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0
Ingrowing nail			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Pruritus			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0
Rash			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1

Musculoskeletal and connective tissue disorders			
Arthralgia			
subjects affected / exposed	50 / 420 (11.90%)	53 / 424 (12.50%)	49 / 427 (11.48%)
occurrences (all)	52	53	55
Back pain			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	5 / 427 (1.17%)
occurrences (all)	0	1	5
Muscle spasms			
subjects affected / exposed	1 / 420 (0.24%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	1	1	0
Myalgia			
subjects affected / exposed	63 / 420 (15.00%)	62 / 424 (14.62%)	58 / 427 (13.58%)
occurrences (all)	63	62	63
Neck pain			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1
Pain in extremity			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1
Tendonitis			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Torticollis			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Metabolism and nutrition disorders			
Decreased appetite			
subjects affected / exposed	54 / 420 (12.86%)	54 / 424 (12.74%)	63 / 427 (14.75%)
occurrences (all)	55	56	64
Iron deficiency			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Infections and infestations			
Abscess oral			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0

Abscess limb			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1
Acute sinusitis			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Balanitis candida			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0
Bronchitis			
subjects affected / exposed	0 / 420 (0.00%)	3 / 424 (0.71%)	0 / 427 (0.00%)
occurrences (all)	0	3	0
Conjunctivitis			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1
Enterobiasis			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1
Gastroenteritis			
subjects affected / exposed	1 / 420 (0.24%)	1 / 424 (0.24%)	1 / 427 (0.23%)
occurrences (all)	1	1	1
Helicobacter infection			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0
Herpes simplex			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	1	0	1
Influenza			
subjects affected / exposed	1 / 420 (0.24%)	2 / 424 (0.47%)	3 / 427 (0.70%)
occurrences (all)	1	2	3
Hordeolum			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0
Injection site cellulitis			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0

Laryngitis			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0
Nasopharyngitis			
subjects affected / exposed	7 / 420 (1.67%)	15 / 424 (3.54%)	6 / 427 (1.41%)
occurrences (all)	7	15	7
Oral candidiasis			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Oral herpes			
subjects affected / exposed	1 / 420 (0.24%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	1	1	0
Otitis media			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	0	0	1
Paronychia			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0
Pharyngitis			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	2 / 427 (0.47%)
occurrences (all)	1	0	3
Pharyngitis streptococcal			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Pharyngotonsillitis			
subjects affected / exposed	2 / 420 (0.48%)	0 / 424 (0.00%)	1 / 427 (0.23%)
occurrences (all)	2	0	1
Pneumonia			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Respiratory tract infection			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Respiratory tract infection viral			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0

Sinusitis			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Rhinitis			
subjects affected / exposed	3 / 420 (0.71%)	4 / 424 (0.94%)	5 / 427 (1.17%)
occurrences (all)	3	4	5
Tonsillitis			
subjects affected / exposed	2 / 420 (0.48%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	2	0	0
Tracheitis			
subjects affected / exposed	1 / 420 (0.24%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	1	0	0
Upper respiratory tract infection			
subjects affected / exposed	8 / 420 (1.90%)	8 / 424 (1.89%)	7 / 427 (1.64%)
occurrences (all)	8	8	7
Tracheobronchitis			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Upper respiratory tract infection bacterial			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Urethritis			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	0 / 427 (0.00%)
occurrences (all)	0	1	0
Urinary tract infection			
subjects affected / exposed	0 / 420 (0.00%)	2 / 424 (0.47%)	1 / 427 (0.23%)
occurrences (all)	0	2	1
Viral infection			
subjects affected / exposed	0 / 420 (0.00%)	1 / 424 (0.24%)	3 / 427 (0.70%)
occurrences (all)	0	1	3
Vulvovaginal mycotic infection			
subjects affected / exposed	0 / 420 (0.00%)	0 / 424 (0.00%)	0 / 427 (0.00%)
occurrences (all)	0	0	0

Non-serious adverse events	ACWY_2 Group		
Total subjects affected by non-serious			

adverse events subjects affected / exposed	317 / 419 (75.66%)		
Neoplasms benign, malignant and unspecified (incl cysts and polyps) Skin papilloma subjects affected / exposed occurrences (all)	 1 / 419 (0.24%) 1		
Immune system disorders Allergy to arthropod sting subjects affected / exposed occurrences (all) Drug hypersensitivity subjects affected / exposed occurrences (all)	 0 / 419 (0.00%) 0 0 / 419 (0.00%) 0		
General disorders and administration site conditions Administration site erythema subjects affected / exposed occurrences (all) Administration site induration subjects affected / exposed occurrences (all) Administration site pain subjects affected / exposed occurrences (all) Application site warmth subjects affected / exposed occurrences (all) Application site erythema subjects affected / exposed occurrences (all) Chills subjects affected / exposed occurrences (all) Discomfort subjects affected / exposed occurrences (all) Facial pain subjects affected / exposed	 0 / 419 (0.00%) 0 0 / 419 (0.00%) 0 0 / 419 (0.00%) 0 1 / 419 (0.24%) 1 0 / 419 (0.00%) 0 56 / 419 (13.37%) 57 0 / 419 (0.00%) 0 0 / 419 (0.00%)		

occurrences (all)	0			
Fatigue				
subjects affected / exposed	147 / 419 (35.08%)			
occurrences (all)	150			
Injection site erythema				
subjects affected / exposed	42 / 419 (10.02%)			
occurrences (all)	47			
Induration				
subjects affected / exposed	0 / 419 (0.00%)			
occurrences (all)	0			
Injection site haematoma				
subjects affected / exposed	1 / 419 (0.24%)			
occurrences (all)	1			
Injection site induration				
subjects affected / exposed	39 / 419 (9.31%)			
occurrences (all)	43			
Injection site oedema				
subjects affected / exposed	0 / 419 (0.00%)			
occurrences (all)	0			
Injection site pain				
subjects affected / exposed	194 / 419 (46.30%)			
occurrences (all)	201			
Injection site pruritus				
subjects affected / exposed	2 / 419 (0.48%)			
occurrences (all)	2			
Injection site rash				
subjects affected / exposed	0 / 419 (0.00%)			
occurrences (all)	0			
Injection site scab				
subjects affected / exposed	0 / 419 (0.00%)			
occurrences (all)	0			
Malaise				
subjects affected / exposed	0 / 419 (0.00%)			
occurrences (all)	0			
Oedema				
subjects affected / exposed	1 / 419 (0.24%)			

occurrences (all)	1		
Pain			
subjects affected / exposed	2 / 419 (0.48%)		
occurrences (all)	2		
Pyrexia			
subjects affected / exposed	14 / 419 (3.34%)		
occurrences (all)	14		
Vaccination site pain			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Vessel puncture site induration			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Vessel puncture site pain			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Psychiatric disorders			
Bulimia nervosa			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Insomnia			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Irritability			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Reproductive system and breast disorders			
Dysfunctional uterine bleeding			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Dysmenorrhoea			
subjects affected / exposed	4 / 419 (0.95%)		
occurrences (all)	4		
Endometriosis			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		

Polycystic ovaries subjects affected / exposed occurrences (all)	0 / 419 (0.00%) 0		
Injury, poisoning and procedural complications Animal bite subjects affected / exposed occurrences (all) Contusion subjects affected / exposed occurrences (all) Fall subjects affected / exposed occurrences (all) Hand fracture subjects affected / exposed occurrences (all) Joint dislocation subjects affected / exposed occurrences (all) Ligament sprain subjects affected / exposed occurrences (all) Limb injury subjects affected / exposed occurrences (all)	 0 / 419 (0.00%) 0 1 / 419 (0.24%) 1 1 / 419 (0.24%) 1 0 / 419 (0.00%) 0 0 / 419 (0.00%) 0 1 / 419 (0.24%) 1 1 / 419 (0.24%) 1		
Cardiac disorders Tachycardia subjects affected / exposed occurrences (all)	 0 / 419 (0.00%) 0		
Respiratory, thoracic and mediastinal disorders Adenoidal hypertrophy subjects affected / exposed occurrences (all) Cough subjects affected / exposed occurrences (all)	 1 / 419 (0.24%) 1 2 / 419 (0.48%) 2		

Dysphonia			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Epistaxis			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences (all)	1		
Nasal congestion			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences (all)	2		
Nasal obstruction			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Oropharyngeal pain			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences (all)	1		
Pharyngeal erythema			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Respiratory disorder			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Rhinitis allergic			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences (all)	1		
Rhinorrhoea			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Sneezing			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Blood and lymphatic system disorders			
Anaemia			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Lymphadenopathy			
subjects affected / exposed	1 / 419 (0.24%)		

occurrences (all)	1		

Nervous system disorders			
Burning sensation			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Dizziness			
subjects affected / exposed	4 / 419 (0.95%)		
occurrences (all)	4		
Epilepsy			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Generalised tonic-clonic seizure			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Headache			
subjects affected / exposed	162 / 419 (38.66%)		
occurrences (all)	188		
Intercostal neuralgia			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Migraine			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences (all)	1		
Presyncope			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Paraesthesia			
subjects affected / exposed	2 / 419 (0.48%)		
occurrences (all)	2		
Sciatica			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Somnolence			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences (all)	1		

Tremor			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Eye disorders			
Eye paraesthesia			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Vision blurred			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences (all)	1		
Ear and labyrinth disorders			
Ear pain			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Gastrointestinal disorders			
Abdominal distension			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Abdominal pain			
subjects affected / exposed	6 / 419 (1.43%)		
occurrences (all)	7		
Abdominal pain lower			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Abdominal pain upper			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Dental caries			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Diarrhoea			
subjects affected / exposed	5 / 419 (1.19%)		
occurrences (all)	5		
Enteritis			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Gastritis			

subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Nausea			
subjects affected / exposed	46 / 419 (10.98%)		
occurrences (all)	46		
Odynophagia			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Oesophagitis			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences (all)	1		
Toothache			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences (all)	1		
Vomiting			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences (all)	1		
Renal and urinary disorders			
Hypertonic bladder			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences (all)	1		
Skin and subcutaneous tissue disorders			
Dermal cyst			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences (all)	1		
Dermatitis			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Dermatitis allergic			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Dermatitis atopic			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Dermatitis contact			
subjects affected / exposed	0 / 419 (0.00%)		

occurrences (all)	0			
Hand dermatitis				
subjects affected / exposed	1 / 419 (0.24%)			
occurrences (all)	1			
Ingrowing nail				
subjects affected / exposed	0 / 419 (0.00%)			
occurrences (all)	0			
Pruritus				
subjects affected / exposed	1 / 419 (0.24%)			
occurrences (all)	1			
Rash				
subjects affected / exposed	0 / 419 (0.00%)			
occurrences (all)	0			
Musculoskeletal and connective tissue disorders				
Arthralgia				
subjects affected / exposed	40 / 419 (9.55%)			
occurrences (all)	41			
Back pain				
subjects affected / exposed	4 / 419 (0.95%)			
occurrences (all)	4			
Muscle spasms				
subjects affected / exposed	0 / 419 (0.00%)			
occurrences (all)	0			
Myalgia				
subjects affected / exposed	65 / 419 (15.51%)			
occurrences (all)	68			
Neck pain				
subjects affected / exposed	1 / 419 (0.24%)			
occurrences (all)	1			
Pain in extremity				
subjects affected / exposed	1 / 419 (0.24%)			
occurrences (all)	1			
Tendonitis				
subjects affected / exposed	0 / 419 (0.00%)			
occurrences (all)	0			

Torticollis			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Metabolism and nutrition disorders			
Decreased appetite			
subjects affected / exposed	34 / 419 (8.11%)		
occurrences (all)	36		
Iron deficiency			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Infections and infestations			
Abscess oral			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Abscess limb			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Acute sinusitis			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Balanitis candida			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences (all)	1		
Bronchitis			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences (all)	1		
Conjunctivitis			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Enterobiasis			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Gastroenteritis			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences (all)	1		
Helicobacter infection			
subjects affected / exposed	1 / 419 (0.24%)		

occurrences (all)	1			
Herpes simplex				
subjects affected / exposed	0 / 419 (0.00%)			
occurrences (all)	0			
Influenza				
subjects affected / exposed	3 / 419 (0.72%)			
occurrences (all)	3			
Hordeolum				
subjects affected / exposed	1 / 419 (0.24%)			
occurrences (all)	1			
Injection site cellulitis				
subjects affected / exposed	1 / 419 (0.24%)			
occurrences (all)	1			
Laryngitis				
subjects affected / exposed	1 / 419 (0.24%)			
occurrences (all)	1			
Nasopharyngitis				
subjects affected / exposed	6 / 419 (1.43%)			
occurrences (all)	6			
Oral candidiasis				
subjects affected / exposed	0 / 419 (0.00%)			
occurrences (all)	0			
Oral herpes				
subjects affected / exposed	0 / 419 (0.00%)			
occurrences (all)	0			
Otitis media				
subjects affected / exposed	0 / 419 (0.00%)			
occurrences (all)	0			
Paronychia				
subjects affected / exposed	1 / 419 (0.24%)			
occurrences (all)	1			
Pharyngitis				
subjects affected / exposed	1 / 419 (0.24%)			
occurrences (all)	1			
Pharyngitis streptococcal				
subjects affected / exposed	0 / 419 (0.00%)			

occurrences (all)	0			
Pharyngotonsillitis				
subjects affected / exposed	2 / 419 (0.48%)			
occurrences (all)	2			
Pneumonia				
subjects affected / exposed	1 / 419 (0.24%)			
occurrences (all)	1			
Respiratory tract infection				
subjects affected / exposed	2 / 419 (0.48%)			
occurrences (all)	2			
Respiratory tract infection viral				
subjects affected / exposed	0 / 419 (0.00%)			
occurrences (all)	0			
Sinusitis				
subjects affected / exposed	2 / 419 (0.48%)			
occurrences (all)	2			
Rhinitis				
subjects affected / exposed	7 / 419 (1.67%)			
occurrences (all)	7			
Tonsillitis				
subjects affected / exposed	2 / 419 (0.48%)			
occurrences (all)	2			
Tracheitis				
subjects affected / exposed	0 / 419 (0.00%)			
occurrences (all)	0			
Upper respiratory tract infection				
subjects affected / exposed	4 / 419 (0.95%)			
occurrences (all)	4			
Tracheobronchitis				
subjects affected / exposed	0 / 419 (0.00%)			
occurrences (all)	0			
Upper respiratory tract infection bacterial				
subjects affected / exposed	0 / 419 (0.00%)			
occurrences (all)	0			
Urethritis				

subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Urinary tract infection			
subjects affected / exposed	2 / 419 (0.48%)		
occurrences (all)	2		
Viral infection			
subjects affected / exposed	0 / 419 (0.00%)		
occurrences (all)	0		
Vulvovaginal mycotic infection			
subjects affected / exposed	1 / 419 (0.24%)		
occurrences (all)	1		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
17 January 2018	Two exclusion criteria were merged into one. Immunogenicity endpoints that were included in subgroup analysis were clarified.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported