Clinical trial results:
Immunogenicity and Safety of the Quadrivalent Inactivated Split-Virion Influenza Vaccine in Subjects 6 Months of age and Older in India

Summary

EudraCT number	2022-001441-21
Trial protocol	Outside EU/EEA
Global end of trial date	28 June 2022

Results information

Result version number	v1 (current)
This version publication date	14 January 2024
First version publication date	14 January 2024

Trial information

Trial identification

Sponsor protocol code	GQM00023

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	-
WHO universal trial number (UTN)	U1111-1254-0403

Notes:

Sponsors

Sponsor organisation name	Sanofi Pasteur
Sponsor organisation address	14 Espace Henry Vallée, Lyon, France, 69007
Public contact	Trial Transparency Team, Sanofi Pasteur, Contact-US@sanofi.com
Scientific contact	Trial Transparency Team, Sanofi Pasteur, Contact-US@sanofi.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	19 September 2023
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	28 June 2022
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

- To describe the immune response induced by quadrivalent influenza vaccine (QIV) in each age group.
- To describe the safety profile of QIV in each age group.

Protection of trial subjects:

Vaccinations were performed by qualified and trained study personnel. Subjects with allergy to any of the vaccine components were not vaccinated. After vaccination, subjects were also kept under clinical observation for 30 minutes to ensure their safety. Appropriate medical equipment were also available on site in case of any immediate allergic reactions.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	07 February 2022
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	Yes

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	India: 401
Worldwide total number of subjects	401
EEA total number of subjects	0

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)	83
Children (2-11 years)	175
Adolescents (12-17 years)	43
Adults (18-64 years)	87
From 65 to 84 years	13
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Study subjects were enrolled from 07 February 2022 to 30 May 2022 at 5 active sites in India.

Pre-assignment

Screening details:

A total of 401 subjects were enrolled in the study.

Period 1

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

Arms

Are arms mutually exclusive?	Yes
Arm title	Group 1: QIV: 6 to 35 months

Arm description:

Subjects aged 6 to 35 months received an injection of 0.5 mililitres (mL) of QIV intramuscularly (IM) on Day 1. Previously vaccinated subjects (defined as subjects who had received at least 2 doses of seasonal influenza vaccine in prior influenza seasons) received only 1 dose of study vaccine after enrolling in the study (at Day 1). Previously unvaccinated subjects (defined as subjects who had not received at least 2 doses of seasonal influenza vaccine in prior influenza seasons) received 2 doses of study vaccine after enrolling in the study (first dose at Day 1 and second dose 28 days apart [at Day 29]).

Arm type	Experimental
Investigational medicinal product name	Quadrivalent influenza vaccine (split-virion, inactivated)
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Suspension for injection in pre-filled syringe
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL, single IM on Day 1 for previously vaccinated subjects and 2 doses for previously unvaccinated subjects on Day 1 and 29.

Arm title	Group 2: QIV: 3 to 8 years

Arm description:

Subjects aged 3 to 8 years received an injection of 0.5 mL of QIV IM on Day 1. Previously vaccinated subjects (defined as subjects who had received at least 2 doses of seasonal influenza vaccine in prior influenza seasons) received only 1 dose of study vaccine after enrolling in the study (at Day 1). Previously unvaccinated subjects (defined as subjects who had not received at least 2 doses of seasonal influenza vaccine in prior influenza seasons) received 2 doses of study vaccine after enrolling in the study (first dose at Day 1 and second dose 28 days apart [at Day 29]).

Arm type	Experimental
Investigational medicinal product name	Quadrivalent influenza vaccine (split-virion, inactivated)
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Suspension for injection in pre-filled syringe
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL, single IM on Day 1 for previously vaccinated subjects and 2 doses for previously unvaccinated subjects on Day 1 and 29.

Arm title	Group 3: QIV: 9 to 17 years

Arm description:	
Subjects aged 9 to 17 years received an injection of 0.5 mL of QIV IM on Day 1.	
Arm type	Experimental
Investigational medicinal product name	Quadrivalent influenza vaccine (split-virion, inactivated)
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Suspension for injection in pre-filled syringe
Routes of administration	Intramuscular use
Dosage and administration details:	
0.5 mL, single IM injection on Day 1.	
Arm title	Group 4: QIV: 18 years and older
Arm description:	
Subjects aged 18 years and older received an injection of 0.5 mL of QIV IM on Day 1.	
Arm type	Experimental
Investigational medicinal product name	Quadrivalent influenza vaccine (split-virion, inactivated)
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Suspension for injection in pre-filled syringe
Routes of administration	Intramuscular use
Dosage and administration details:	
0.5 mL, single IM injection on Day 1.	

Number of subjects in period 1	Group 1: QIV: 6 to 35 months	Group 2: QIV: 3 to 8 years	Group 3: QIV: 9 to 17 years
Started	103	98	100
Vaccinated at Day 01	103	97	100
Vaccinated at Day 29	101 [1]	94 [2]	0 [3]
Completed	102	97	100
Not completed	1	1	0
Withdrawal by subject or parent/guardian	1	1	-

Number of subjects in period 1	Group 4: QIV: 18 years and older
Started	100
Vaccinated at Day 01	100
Vaccinated at Day 29	0 [4]
Completed	100
Not completed	0
Withdrawal by subject or parent/guardian	-

Notes:

[1] - The number of subjects at this milestone seems inconsistent with the number of subjects in the arm. It is expected that the number of subjects will be greater than, or equal to the number that completed, minus those who left.
Justification: Subjects who had received at least a dose of the study vaccine at specified timepoint.

[2] - The number of subjects at this milestone seems inconsistent with the number of subjects in the arm. It is expected that the number of subjects will be greater than, or equal to the number that

completed, minus those who left.

Justification: Subjects who had received at least a dose of the study vaccine at specified timepoint.

[3] - The number of subjects at this milestone seems inconsistent with the number of subjects in the arm. It is expected that the number of subjects will be greater than, or equal to the number that completed, minus those who left.

Justification: Group 3 subjects did not receive second dose of vaccination at Day 29.

[4] - The number of subjects at this milestone seems inconsistent with the number of subjects in the arm. It is expected that the number of subjects will be greater than, or equal to the number that completed, minus those who left.

Justification: Group 4 subjects did not receive second dose of vaccination at Day 29.

Baseline characteristics

Reporting groups	
Reporting group title	Group 1: QIV: 6 to 35 months
Reporting group description:	
Subjects aged 6 to 35 months received an injection of 0.5 mililitres (mL) of QIV intramuscularly (IM) on Day 1. Previously vaccinated subjects (defined as subjects who had received at least 2 doses of seasonal influenza vaccine in prior influenza seasons) received only 1 dose of study vaccine after enrolling in the study (at Day 1). Previously unvaccinated subjects (defined as subjects who had not received at least 2 doses of seasonal influenza vaccine in prior influenza seasons) received 2 doses of study vaccine after enrolling in the study (first dose at Day 1 and second dose 28 days apart [at Day 29]).	
Reporting group title	Group 2: QIV: 3 to 8 years
Reporting group description:	
Subjects aged 3 to 8 years received an injection of 0.5 mL of QIV IM on Day 1. Previously vaccinated subjects (defined as subjects who had received at least 2 doses of seasonal influenza vaccine in prior influenza seasons) received only 1 dose of study vaccine after enrolling in the study (at Day 1). Previously unvaccinated subjects (defined as subjects who had not received at least 2 doses of seasonal influenza vaccine in prior influenza seasons) received 2 doses of study vaccine after enrolling in the study (first dose at Day 1 and second dose 28 days apart [at Day 29]).	
Reporting group title	Group 3: QIV: 9 to 17 years
Reporting group description:	
Subjects aged 9 to 17 years received an injection of 0.5 mL of QIV IM on Day 1.	
Reporting group title	Group 4: QIV: 18 years and older
Reporting group description:	
Subjects aged 18 years and older received an injection of 0.5 mL of QIV IM on Day 1.	

Reporting group values	Group 1: QIV: 6 to 35 months	Group 2: QIV: 3 to 8 years	Group 3: QIV: 9 to 17 years
Number of subjects	103	98	100
Age categorical Units: Subjects			
Age continuous Units: years			
arithmetic mean	1.13	5.60	11.4
standard deviation	± 0.571	± 1.63	± 2.15
Gender categorical Units: Subjects			
Female	45	47	56
Male	58	51	44

Reporting group values	Group 4: QIV: 18 years and older	Total	
Number of subjects	100	401	
Age categorical Units: Subjects			
Age continuous Units: years			
arithmetic mean	38.5		
standard deviation	± 16.1	-	

Gender categorical Units: Subjects			
Female	47	195	
Male	53	206	

End points

End points reporting groups

Reporting group title	Group 1: QIV: 6 to 35 months

Reporting group description:

Subjects aged 6 to 35 months received an injection of 0.5 mililitres (mL) of QIV intramuscularly (IM) on Day 1. Previously vaccinated subjects (defined as subjects who had received at least 2 doses of seasonal influenza vaccine in prior influenza seasons) received only 1 dose of study vaccine after enrolling in the study (at Day 1). Previously unvaccinated subjects (defined as subjects who had not received at least 2 doses of seasonal influenza vaccine in prior influenza seasons) received 2 doses of study vaccine after enrolling in the study (first dose at Day 1 and second dose 28 days apart [at Day 29]).

Reporting group title	Group 2: QIV: 3 to 8 years

Reporting group description:

Subjects aged 3 to 8 years received an injection of 0.5 mL of QIV IM on Day 1. Previously vaccinated subjects (defined as subjects who had received at least 2 doses of seasonal influenza vaccine in prior influenza seasons) received only 1 dose of study vaccine after enrolling in the study (at Day 1). Previously unvaccinated subjects (defined as subjects who had not received at least 2 doses of seasonal influenza vaccine in prior influenza seasons) received 2 doses of study vaccine after enrolling in the study (first dose at Day 1 and second dose 28 days apart [at Day 29]).

Reporting group title	Group 3: QIV: 9 to 17 years

Reporting group description:

Subjects aged 9 to 17 years received an injection of 0.5 mL of QIV IM on Day 1.

Reporting group title	Group 4: QIV: 18 years and older

Reporting group description:

Subjects aged 18 years and older received an injection of 0.5 mL of QIV IM on Day 1.

Primary: Geometric Mean Titers (GMTs) of Influenza Antibodies

End point title	Geometric Mean Titers (GMTs) of Influenza Antibodies[1]

End point description:

GMTs of anti-influenza antibodies were measured using hemagglutination inhibition (HAI) assay for 4 influenza virus strains: A/H1N1, A/H3N2, B/Yamagata and B/Victoria lineage. Titers were expressed in terms of 1/dilution. Analysis was performed on full analysis set (FAS) population that included all subjects who received at least 1 dose of the study vaccine and had a post-vaccination blood sample. The data table excluded results from a trial clinical site with sample management issues.

End point type	Primary

End point timeframe:

Day 1 (pre-vaccination), Day 29 (post-vaccination; for subjects with 1 vaccination) or Day 57 (post vaccination; for subjects with 2 vaccinations)

Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: As the endpoint was descriptive in nature, no statistical analysis was provided.

End point values	Group 1: QIV: 6 to 35 months	Group 2: QIV: 3 to 8 years	Group 3: QIV: 9 to 17 years	Group 4: QIV: 18 years and older
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	96	87	80	73
Units: titer				
geometric mean (confidence interval 95%)				
A/H1N1: Pre-vaccination	8.05 (6.29 to 10.3)	16.7 (12.4 to 22.4)	29.3 (22.6 to 37.9)	17.3 (13.1 to 22.9)

A/H3N2: Pre-vaccination	13.5 (10.1 to 18.1)	44.0 (31.7 to 61.1)	85.0 (62.2 to 116)	89.7 (66.7 to 120)
B/Yamagata: Pre-vaccination	11.6 (8.90 to 15.0)	33.8 (23.5 to 48.6)	129 (96.6 to 172)	150 (108 to 208)
B/Victoria: Pre-vaccination	8.91 (7.21 to 11.0)	21.3 (15.3 to 29.6)	33.9 (24.8 to 46.4)	26.6 (19.1 to 37.1)
A/H1N1: Post-vaccination	397 (305 to 517)	938 (722 to 1220)	1384 (1000 to 1915)	1368 (1043 to 1794)
A/H3N2: Post-vaccination	173 (126 to 239)	682 (535 to 869)	874 (731 to 1045)	646 (522 to 800)
B/Yamagata: Post-vaccination	440 (335 to 577)	859 (689 to 1072)	1325 (1058 to 1659)	1504 (1157 to 1955)
B/Victoria: Post-vaccination	164 (122 to 219)	369 (276 to 494)	337 (240 to 474)	362 (262 to 501)

Statistical analyses

No statistical analyses for this end point

Primary: Geometric Mean Titer Ratios (GMTRs) of Individual HAI Titer

End point title	Geometric Mean Titer Ratios (GMTRs) of Individual HAI Titer[2]

End point description:

GMTs of anti-influenza antibodies were measured using HAI assay for 4 influenza virus strains: A/H1N1, A/H3N2, B/Yamagata and B/Victoria lineage. GMTRs were calculated as the ratio of GMTs post-vaccination (on Day 29 or Day 57) and pre-vaccination (on Day 0). Analysis was performed on FAS population. The data table excluded results from a trial clinical site with sample management issues.

End point type	Primary

End point timeframe:

Day 1 (pre-vaccination), Day 29 (post-vaccination; for subjects with 1 vaccination) or Day 57 (post vaccination; for subjects with 2 vaccinations)

Notes:

[2] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: As the endpoint was descriptive in nature, no statistical analysis was provided.

End point values	Group 1: QIV: 6 to 35 months	Group 2: QIV: 3 to 8 years	Group 3: QIV: 9 to 17 years	Group 4: QIV: 18 years and older
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	96	87	80	73
Units: ratio				
geometric mean (confidence interval 95%)				
A/H1N1	49.4 (37.1 to 65.7)	56.3 (42.9 to 73.9)	47.3 (34.8 to 64.1)	78.9 (56.2 to 111)
A/H3N2	12.8 (9.75 to 16.8)	15.5 (11.4 to 21.1)	10.3 (7.42 to 14.3)	7.21 (5.23 to 9.93)
B/Yamagata	38.1 (26.5 to 54.7)	25.4 (17.5 to 36.9)	10.3 (7.55 to 14.0)	10.0 (7.12 to 14.2)
B/Victoria	18.4 (13.5 to 24.9)	17.3 (12.0 to 24.9)	9.93 (6.56 to 15.1)	13.6 (9.65 to 19.2)

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Subjects With HAI Titer >= 10 (1/dilution)

End point title	Percentage of Subjects With HAI Titer >= 10 (1/dilution)[3]

End point description:

Anti-influenza antibodies were measured using HAI assay for 4 influenza virus strains: A/H1N1, A/H3N2, B/Yamagata and B/Victoria lineage. Percentage of subjects with HAI titers >=10 (1/dilution) is reported. Analysis was performed on FAS population. The data table excluded results from a trial clinical site with sample management issues.

End point type	Primary

End point timeframe:

Day 1 (pre-vaccination), Day 29 (post-vaccination; for subjects with 1 vaccination) or Day 57 (post vaccination; for subjects with 2 vaccinations)

Notes:

[3] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: As the endpoint was descriptive in nature, no statistical analysis was provided.

End point values	Group 1: QIV: 6 to 35 months	Group 2: QIV: 3 to 8 years	Group 3: QIV: 9 to 17 years	Group 4: QIV: 18 years and older
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	96	87	80	73
Units: percentage of subjects				
number (confidence interval 95%)				
A/H1N1: Pre-vaccination	19.8 (12.4 to 29.2)	55.2 (44.1 to 65.9)	86.3 (76.7 to 92.9)	65.8 (53.7 to 76.5)
A/H3N2: Pre-vaccination	37.5 (27.8 to 48.0)	82.8 (73.2 to 90.0)	93.8 (86.0 to 97.9)	95.9 (88.5 to 99.1)
B/Yamagata: Pre-vaccination	44.8 (34.6 to 55.3)	69.0 (58.1 to 78.5)	93.8 (86.0 to 97.9)	94.5 (86.6 to 98.5)
B/Victoria: Pre-vaccination	33.3 (24.0 to 43.7)	62.1 (51.0 to 72.3)	85.0 (75.3 to 92.0)	79.5 (68.4 to 88.0)
A/H1N1: Post-vaccination	100 (96.2 to 100)	100 (95.8 to 100)	100 (95.5 to 100)	100 (95.1 to 100)
A/H3N2: Post-vaccination	97.9 (92.7 to 99.7)	100 (95.8 to 100)	100 (95.5 to 100)	100 (95.1 to 100)
B/Yamagata: Post-vaccination	99.0 (94.3 to 100)	100 (95.8 to 100)	100 (95.5 to 100)	100 (95.1 to 100)
B/Victoria: Post-vaccination	99.0 (94.3 to 100)	98.9 (93.8 to 100)	100 (95.5 to 100)	98.6 (92.6 to 100)

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Subjects Achieving Seroconversion Against Antigens

End point title	Percentage of Subjects Achieving Seroconversion Against Antigens[4]

End point description:

Anti-influenza antibodies were measured using HAI assay for 4 influenza virus strains: A/H1N1, A/H3N2, B/Yamagata and B/Victoria lineage. Seroconversion was defined as either a pre-vaccination HAI titer < 1:10 and a post-vaccination titer >= 1:40 or a pre-vaccination titer >= 1:10 and a >= four-fold

increase in post-vaccination titer. Analysis was performed on FAS population. The data table excluded results from a trial clinical site with sample management issues.

End point type	Primary

End point timeframe:

Day 29 (post-vaccination; for subjects with 1 vaccination) or Day 57 (post vaccination; for subjects with 2 vaccinations)

Notes:

[4] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: As the endpoint was descriptive in nature, no statistical analysis was provided.

End point values	Group 1: QIV: 6 to 35 months	Group 2: QIV: 3 to 8 years	Group 3: QIV: 9 to 17 years	Group 4: QIV: 18 years and older
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	96	87	80	73
Units: percentage of subjects				
number (confidence interval 95%)				
A/H1N1	96.9 (91.1 to 99.4)	96.6 (90.3 to 99.3)	97.5 (91.3 to 99.7)	97.3 (90.5 to 99.7)
A/H3N2	79.2 (69.7 to 86.8)	83.9 (74.5 to 90.9)	72.5 (61.4 to 81.9)	71.2 (59.4 to 81.2)
B/Yamagata	89.6 (81.7 to 94.9)	87.4 (78.5 to 93.5)	77.5 (66.8 to 86.1)	83.6 (73.0 to 91.2)
B/Victoria	89.6 (81.7 to 94.9)	86.2 (77.1 to 92.7)	67.5 (56.1 to 77.6)	83.6 (73.0 to 91.2)

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Subjects With HAI Titer >= 40 (1/dilution)

End point title	Percentage of Subjects With HAI Titer >= 40 (1/dilution)[5]

End point description:

Anti-influenza antibodies were measured using HAI assay for 4 influenza virus strains: A/H1N1, A/H3N2, B/Yamagata and B/Victoria lineage. Percentage of subjects with HAI titers >=40 (1/dilution) is reported in the endpoint. Analysis was performed on FAS population. The data table excluded results from a trial clinical site with sample management issues.

End point type	Primary

End point timeframe:

Day 1 (pre-vaccination), Day 29 (post-vaccination; for subjects with 1 vaccination) or Day 57 (post vaccination; for subjects with 2 vaccinations)

Notes:

[5] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: As the endpoint was descriptive in nature, no statistical analysis was provided.

End point values	Group 1: QIV: 6 to 35 months	Group 2: QIV: 3 to 8 years	Group 3: QIV: 9 to 17 years	Group 4: QIV: 18 years and older
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	96	87	80	73
Units: percentage of subjects				
number (confidence interval 95%)				

A/H1N1: Pre-vaccination	11.5 (5.9 to 19.6)	34.5 (24.6 to 45.4)	52.5 (41.0 to 63.8)	31.5 (21.1 to 43.4)
A/H3N2: Pre-vaccination	31.3 (22.2 to 41.5)	59.8 (48.7 to 70.1)	80.0 (69.6 to 88.1)	82.2 (71.5 to 90.2)
B/Yamagata: Pre-vaccination	18.8 (11.5 to 28.0)	52.9 (41.9 to 63.7)	86.3 (76.7 to 92.9)	89.0 (79.5 to 95.1)
B/Victoria: Pre-vaccination	12.5 (6.6 to 20.8)	36.8 (26.7 to 47.8)	50.0 (38.6 to 61.4)	45.2 (33.5 to 57.3)
A/H1N1: Post-vaccination	97.9 (92.7 to 99.7)	97.7 (91.9 to 99.7)	100 (95.5 to 100)	100 (95.1 to 100)
A/H3N2: Post-vaccination	87.5 (79.2 to 93.4)	100 (95.8 to 100)	100 (95.5 to 100)	100 (95.1 to 100)
B/Yamagata: Post-vaccination	97.9 (92.7 to 99.7)	100 (95.8 to 100)	100 (95.5 to 100)	100 (95.1 to 100)
B/Victoria: Post-vaccination	89.6 (81.7 to 94.9)	97.7 (91.9 to 99.7)	95.0 (87.7 to 98.6)	95.9 (88.5 to 99.1)

Statistical analyses

No statistical analyses for this end point

Primary: Number of Subjects With Immediate Unsolicited Systemic Adverse Events (AEs)

End point title	Number of Subjects With Immediate Unsolicited Systemic Adverse Events (AEs)[6]

End point description:

An AE was defined as any untoward medical occurrence in a subject who received study vaccine and does not necessarily had to have a causal relationship with treatment. An unsolicited AE was an observed AE that did not fulfill the conditions prelisted in the case report book (CRB) in terms of diagnosis and/or onset post-vaccination. All subjects were observed for 30 minutes after any vaccination, and any unsolicited AEs occurred during that time were recorded as immediate unsolicited AEs in the CRB. Analysis was performed on the safety analysis set (SafAS) that included subjects who had received at least one dose of the study vaccine.

End point type	Primary

End point timeframe:

Within 30 minutes post-any vaccination

Notes:

[6] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: As the endpoint was descriptive in nature, no statistical analysis was provided.

End point values	Group 1: QIV: 6 to 35 months	Group 2: QIV: 3 to 8 years	Group 3: QIV: 9 to 17 years	Group 4: QIV: 18 years and older
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	103	97	100	100
Units: subjects	0	0	0	0

Statistical analyses

No statistical analyses for this end point

Primary: Number of Subjects With Solicited Injection Site Reactions

End point title	Number of Subjects With Solicited Injection Site Reactions[7]

End point description:

A solicited reaction (SR) was an expected adverse reaction (AR) observed and reported under conditions (nature and onset) prelisted (i.e., solicited) in the protocol and CRB and considered as related to vaccination. An AR was all noxious and unintended responses to a medicinal product related to any dose. Solicited injection site reactions included pain/tenderness, erythema, swelling, induration and bruising. Analysis was performed on SafAS.

End point type	Primary

End point timeframe:

Within 7 days post-any vaccination

Notes:

[7] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: As the endpoint was descriptive in nature, no statistical analysis was provided.

End point values	Group 1: QIV: 6 to 35 months	Group 2: QIV: 3 to 8 years	Group 3: QIV: 9 to 17 years	Group 4: QIV: 18 years and older
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	103	97	100	100
Units: subjects				
Injection site Pain/Tenderness	17	34	31	15
Injection site Erythema	6	1	1	0
Injection site Swelling	5	7	0	0
Injection site Induration	0	0	1	0
Injection site Bruising	0	0	0	0

Statistical analyses

No statistical analyses for this end point

Primary: Number of Subjects With Solicited Systemic Reactions

End point title	Number of Subjects With Solicited Systemic Reactions[8]

End point description:

SR was an expected AR observed and reported under conditions (nature and onset) prelisted (i.e., solicited) in the protocol and CRB and considered as related to vaccination. An AR was all noxious and unintended responses to a medicinal product related to any dose. Solicited reaction were collected by different age group: fever, vomiting, crying abnormal, drowsiness, appetite lost, irritability were collected for infants and toddlers aged <=23 months and fever, headache, malaise, myalgia and shivering were collected for subjects aged >= 2 years. Analysis was performed on SafAS. Here, 'n' = subjects with available data for each specified category and "99999" is used as a space filler and denotes that no subjects were available for analysis for the specified category at the specified timepoint.

End point type	Primary

End point timeframe:

Within 7 days post-any vaccination

Notes:

[8] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: As the endpoint was descriptive in nature, no statistical analysis was provided.

End point values	Group 1: QIV: 6 to 35 months	Group 2: QIV: 3 to 8 years	Group 3: QIV: 9 to 17 years	Group 4: QIV: 18 years and older
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	103	97	100	100
Units: subjects				
Fever (n=103,97,100,100)	3	2	0	0
Vomiting (n=83,0,0,0)	0	99999	99999	99999
Crying abnormal (n=83,0,0,0)	0	99999	99999	99999
Drowsiness (n=83,0,0,0)	0	99999	99999	99999
Appetite lost (n=83,0,0,0)	0	99999	99999	99999
Irritability (n=83,0,0,0)	5	99999	99999	99999
Headache (n=20,97,100,100)	0	1	2	2
Malaise (n=20,97,100,100)	0	2	2	6
Myalgia (n=20,97,100,100)	0	0	1	1
Shivering (n=20,97,100,100)	0	0	0	0

Statistical analyses

No statistical analyses for this end point

Primary: Number of Subjects With Serious Adverse Events (SAEs) and Adverse Event of Special Interest (AESIs)

End point title	Number of Subjects With Serious Adverse Events (SAEs) and Adverse Event of Special Interest (AESIs)[9]

End point description:

An SAE was any untoward medical occurrence that at any dose resulted in death, was life-threatening, required initial or prolonged inpatient hospitalisation, resulted in persistent or significant disability/incapacity, congenital anomaly/birth defect or was a medically important event. An AESI was defined as one of scientific and medical concern specific to the Sponsor’s product or program, for which ongoing monitoring and rapid communication by the investigator to the sponsor was appropriate. Relatedness to study vaccine was based on investigator's discretion. Analysis was performed on SafAS.

End point type	Primary

End point timeframe:

From Day 1 up to end of the study i.e., Day 29 (post-vaccination; for subjects with 1 vaccination) or Day 57 (post vaccination; for subjects with 2 vaccinations)

Notes:

[9] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: As the endpoint was descriptive in nature, no statistical analysis was provided.

End point values	Group 1: QIV: 6 to 35 months	Group 2: QIV: 3 to 8 years	Group 3: QIV: 9 to 17 years	Group 4: QIV: 18 years and older
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	103	97	100	100
Units: subjects				
SAEs	1	1	0	0
AESIs	0	0	0	0

Statistical analyses

No statistical analyses for this end point

Primary: Number of Subjects With Unsolicited AEs

End point title	Number of Subjects With Unsolicited AEs[10]

End point description:

An AE was defined as any untoward medical occurrence in a subject who received study vaccine and does not necessary had to have a causal relationship with treatment. An unsolicited AE was an observed AE that did not fulfill the conditions prelisted in the CRB in terms of diagnosis and/or onset window post-vaccination. Analysis was performed on SafAS.

End point type	Primary

End point timeframe:

Within 28 days post-any vaccination

Notes:

[10] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: As the endpoint was descriptive in nature, no statistical analysis was provided.

End point values	Group 1: QIV: 6 to 35 months	Group 2: QIV: 3 to 8 years	Group 3: QIV: 9 to 17 years	Group 4: QIV: 18 years and older
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	103	97	100	100
Units: subjects	24	16	3	4

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Unsolicited AEs: up to 28 days post-vaccination. Solicited reaction data: up to Day 7 post-vaccination. SAE: throughout study i.e., Day 29 (post-vaccination; for subjects with 1 vaccination) or Day 57 (post-vaccination; for subjects with 2 vaccinations)

Adverse event reporting additional description:

Analysed on safety analysis set. Solicited reaction was an adverse reaction that was prelisted (i.e., solicited) in the CRB and considered to be related to vaccination (adverse drug reaction). An unsolicited AE that did not fulfill conditions prelisted (i.e., solicited) in CRB in terms of diagnosis & onset window post-vaccination.

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	25.0

Reporting groups

Reporting group title	Group 1: QIV: 6 to 35 months

Reporting group description:

Subjects aged 6 to 35 months received an injection of 0.5 mL of QIV IM on Day 1. Previously vaccinated subjects (defined as subjects who had received at least 2 doses of seasonal influenza vaccine in prior influenza seasons) received only 1 dose of study vaccine after enrolling in the study (at Day 1). Previously unvaccinated subjects (defined as subjects who had not received at least 2 doses of seasonal influenza vaccine in prior influenza seasons) received 2 doses of study vaccine after enrolling in the study (first dose at Day 1 and second dose 28 days apart [at Day 29]).

Reporting group title	Group 4: QIV: 18 years and older

Reporting group description:

Subjects aged 18 years and older received an injection of 0.5 mL of QIV IM on Day 1.

Reporting group title	Group 3: QIV: 9 to 17 years

Reporting group description:

Subjects aged 9 to 17 years received an injection of 0.5 mL of QIV IM on Day 1.

Reporting group title	Group 2: QIV: 3 to 8 years

Reporting group description:

Subjects aged 3 to 8 years received an injection of 0.5 mL of QIV IM on Day 1. Previously vaccinated subjects (defined as subjects who had received at least 2 doses of seasonal influenza vaccine in prior influenza seasons) received only 1 dose of study vaccine after enrolling in the study (at Day 1). Previously unvaccinated subjects (defined as subjects who had not received at least 2 doses of seasonal influenza vaccine in prior influenza seasons) received 2 doses of study vaccine after enrolling in the study (first dose at Day 1 and second dose 28 days apart [at Day 29]).

Serious adverse events	Group 1: QIV: 6 to 35 months	Group 4: QIV: 18 years and older	Group 3: QIV: 9 to 17 years
Total subjects affected by serious adverse events			
subjects affected / exposed	1 / 103 (0.97%)	0 / 100 (0.00%)	0 / 100 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events			
Infections and infestations			
Gastroenteritis Shigella			

subjects affected / exposed	0 / 103 (0.00%)	0 / 100 (0.00%)	0 / 100 (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
Gastroenteritis			
subjects affected / exposed	1 / 103 (0.97%)	0 / 100 (0.00%)	0 / 100 (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	Group 2: QIV: 3 to 8 years		
Total subjects affected by serious adverse events			
subjects affected / exposed	1 / 97 (1.03%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events			
Infections and infestations			
Gastroenteritis Shigella			
subjects affected / exposed	1 / 97 (1.03%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Gastroenteritis			
subjects affected / exposed	0 / 97 (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: 5 %

Non-serious adverse events	Group 1: QIV: 6 to 35 months	Group 4: QIV: 18 years and older	Group 3: QIV: 9 to 17 years
Total subjects affected by non-serious adverse events			
subjects affected / exposed	28 / 103 (27.18%)	18 / 100 (18.00%)	31 / 100 (31.00%)
General disorders and administration site conditions			
Injection Site Erythema			
subjects affected / exposed	6 / 103 (5.83%)	0 / 100 (0.00%)	1 / 100 (1.00%)
occurrences (all)	7	0	1
Malaise			
subjects affected / exposed	0 / 103 (0.00%)	6 / 100 (6.00%)	2 / 100 (2.00%)
occurrences (all)	0	6	2

Injection Site Swelling			
subjects affected / exposed	5 / 103 (4.85%)	0 / 100 (0.00%)	0 / 100 (0.00%)
occurrences (all)	5	0	0
Injection Site Pain			
subjects affected / exposed	17 / 103 (16.50%)	15 / 100 (15.00%)	31 / 100 (31.00%)
occurrences (all)	20	15	31
Psychiatric disorders			
Irritability			
subjects affected / exposed	8 / 103 (7.77%)	0 / 100 (0.00%)	0 / 100 (0.00%)
occurrences (all)	8	0	0
Infections and infestations			
Upper Respiratory Tract Infection			
subjects affected / exposed	8 / 103 (7.77%)	0 / 100 (0.00%)	0 / 100 (0.00%)
occurrences (all)	9	0	0

Non-serious adverse events	Group 2: QIV: 3 to 8 years		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	37 / 97 (38.14%)		
General disorders and administration site conditions			
Injection Site Erythema			
subjects affected / exposed	1 / 97 (1.03%)		
occurrences (all)	1		
Malaise			
subjects affected / exposed	2 / 97 (2.06%)		
occurrences (all)	2		
Injection Site Swelling			
subjects affected / exposed	7 / 97 (7.22%)		
occurrences (all)	7		
Injection Site Pain			
subjects affected / exposed	34 / 97 (35.05%)		
occurrences (all)	42		
Psychiatric disorders			
Irritability			
subjects affected / exposed	2 / 97 (2.06%)		
occurrences (all)	2		
Infections and infestations			

Upper Respiratory Tract Infection subjects affected / exposed occurrences (all)	6 / 97 (6.19%) 7		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? No

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported