Clinical trial results:
A Randomized, Double-Blind, Placebo-Controlled, Phase 3 Trial to Investigate the Safety and Immunogenicity of a Dengue Tetravalent Vaccine (Live, Attenuated) (TDV) Administered Subcutaneously to Healthy Subjects Aged 4 to 60 Years in India

Summary

EudraCT number	2023-000134-15
Trial protocol	Outside EU/EEA
Global end of trial date	05 May 2025

Results information

Result version number	v1
This version publication date	21 November 2025
First version publication date	21 November 2025

Trial information

Trial identification

Sponsor protocol code	DEN-302

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT06060067
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Takeda Vaccines, Inc.
Sponsor organisation address	40 Landsdowne Street, Cambridge, MA, United States, 02139
Public contact	Study Director, Takeda, TrialDisclosures@takeda.com
Scientific contact	Study Director, Takeda, TrialDisclosures@takeda.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	05 May 2025
Is this the analysis of the primary completion data?	No

Global end of trial reached?	Yes
Global end of trial date	05 May 2025
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

The main objective of the trial was to evaluate the immunogenicity and safety of TDV in the Indian population

Protection of trial subjects:

Each participant or their legally authorized representative signed an informed consent form (ICF)

Background therapy:

NA

Evidence for comparator:

NA

Actual start date of recruitment	29 March 2024
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: 480
Worldwide total number of subjects	480
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)	0
Children (2-11 years)	141
Adolescents (12-17 years)	99
Adults (18-64 years)	240
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Participants took part in the study at 10 investigative sites in India from 29 March 2024 to 05 May 2025.

Pre-assignment

Screening details:

Healthy children and adult participants were enrolled in Cohort 1 (≥18 to ≤60 Age Group) and Cohort 2 (≥4 to <18 Age Group) to receive either tetravalent dengue vaccine (TDV) or placebo in a 3:1 ratio for this study.

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

Arms

Are arms mutually exclusive?	Yes
Arm title	Cohort 1: ≥18 to ≤60 Age Group: TDV

Arm description:

Participants randomized to receive TDV subcutaneous (SC) injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.

Arm type	Experimental
Investigational medicinal product name	Dengue Tetravalent Vaccine (Live, Attenuated)
Investigational medicinal product code	
Other name	TAK-003
Pharmaceutical forms	Powder and solvent for solution for injection
Routes of administration	Subcutaneous use

Dosage and administration details:

TDV SC injection on Day 1 and Day 90 of the study.

Arm title	Cohort 1: ≥18 to ≤60 Age Group: Placebo

Arm description:

Participants received TDV-matching placebo SC injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection
Routes of administration	Subcutaneous use

Dosage and administration details:

Normal Saline (0.9% NaCl) SC injection on Day 1 and Day 90 of the study.

Arm title	Cohort 2: ≥4 to <18 Age Group: TDV

Arm description:

Participants received TDV SC injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.

Arm type	Experimental

Investigational medicinal product name	Dengue Tetravalent Vaccine (Live, Attenuated)
Investigational medicinal product code	
Other name	TAK-003
Pharmaceutical forms	Powder and solvent for solution for injection
Routes of administration	Subcutaneous use

Dosage and administration details:

TDV SC injection on Day 1 and Day 90 of the study.

Arm title	Cohort 2: ≥4 to <18 Age Group: Placebo

Arm description:

Participants received TDV-matching placebo SC injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Solution for injection
Routes of administration	Subcutaneous use

Dosage and administration details:

Normal Saline (0.9% NaCl) SC injection on Day 1 and Day 90 of the study.

Number of subjects in period 1	Cohort 1: ≥18 to ≤60 Age Group: TDV	Cohort 1: ≥18 to ≤60 Age Group: Placebo	Cohort 2: ≥4 to <18 Age Group: TDV
Started	180	60	180
Completed	175	59	178
Not completed	5	1	2
Consent withdrawn by subject	2	-	-
Adverse event, non-fatal	1	-	-
Reason Not Specified	1	-	1
Lost to follow-up	1	1	1

Number of subjects in period 1	Cohort 2: ≥4 to <18 Age Group: Placebo
Started	60
Completed	58
Not completed	2
Consent withdrawn by subject	1
Adverse event, non-fatal	-
Reason Not Specified	-
Lost to follow-up	1

Baseline characteristics

Reporting groups	
Reporting group title	Cohort 1: ≥18 to ≤60 Age Group: TDV
Reporting group description:	
Participants randomized to receive TDV subcutaneous (SC) injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.	
Reporting group title	Cohort 1: ≥18 to ≤60 Age Group: Placebo
Reporting group description:	
Participants received TDV-matching placebo SC injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.	
Reporting group title	Cohort 2: ≥4 to <18 Age Group: TDV
Reporting group description:	
Participants received TDV SC injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.	
Reporting group title	Cohort 2: ≥4 to <18 Age Group: Placebo
Reporting group description:	
Participants received TDV-matching placebo SC injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.	

Reporting group values	Cohort 1: ≥18 to ≤60 Age Group: TDV	Cohort 1: ≥18 to ≤60 Age Group: Placebo	Cohort 2: ≥4 to <18 Age Group: TDV
Number of subjects	180	60	180
Age Categorical			
Units: Subjects			
Age continuous			
Units: years			
arithmetic mean	37.2	36.5	9.7
standard deviation	± 11.66	± 11.12	± 4.05
Gender categorical			
Units: Subjects			
Female	54	14	79
Male	126	46	101

Reporting group values	Cohort 2: ≥4 to <18 Age Group: Placebo	Total	
Number of subjects	60	480	
Age Categorical			
Units: Subjects			
Age continuous			
Units: years			
arithmetic mean	10.3		
standard deviation	± 4.35	-	
Gender categorical			
Units: Subjects			
Female	29	176	
Male	31	304	

End points

End points reporting groups

Reporting group title	Cohort 1: ≥18 to ≤60 Age Group: TDV
Reporting group description:	
Participants randomized to receive TDV subcutaneous (SC) injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.	
Reporting group title	Cohort 1: ≥18 to ≤60 Age Group: Placebo
Reporting group description:	
Participants received TDV-matching placebo SC injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.	
Reporting group title	Cohort 2: ≥4 to <18 Age Group: TDV
Reporting group description:	
Participants received TDV SC injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.	
Reporting group title	Cohort 2: ≥4 to <18 Age Group: Placebo
Reporting group description:	
Participants received TDV-matching placebo SC injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.	
Subject analysis set title	Cohort 2: ≥ 4 to <6 Age group: TDV
Subject analysis set type	Sub-group analysis
Subject analysis set description:	
Participants received TDV SC injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.	
Subject analysis set title	Cohort 2: ≥ 4 to <6 Age group: Placebo
Subject analysis set type	Sub-group analysis
Subject analysis set description:	
Participants received TDV-matching placebo SC injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.	
Subject analysis set title	Cohort 2: ≥ 6 to <18 Age group: TDV
Subject analysis set type	Sub-group analysis
Subject analysis set description:	
Participants received TDV SC injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.	
Subject analysis set title	Cohort 2: ≥ 6 to < 18 Age group: Placebo
Subject analysis set type	Sub-group analysis
Subject analysis set description:	
Participants received TDV-matching placebo SC injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.	
Subject analysis set title	Cohort 1 and 2 Combined: TDV
Subject analysis set type	Sub-group analysis
Subject analysis set description:	
Participants received TDV SC injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.	
Subject analysis set title	Cohort 1 and 2 Combined: Placebo
Subject analysis set type	Sub-group analysis
Subject analysis set description:	
Participants received TDV-matching placebo SC injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.	

Primary: Number of Participants with Solicited Local (Injection Site) Adverse Events (AEs) by Severity Within 7 Days Post Vaccination at Day 1

End point title	Number of Participants with Solicited Local (Injection Site) Adverse Events (AEs) by Severity Within 7 Days Post Vaccination at Day 1 [1][2]
End point description:	
Solicited local AEs at injection site were defined as injection site pain, injection site erythema, and	

injection site swelling. The AEs were graded by investigator as Grade 0: none, Grade 1: mild, Grade 2: moderate and Grade 3: severe. Safety Analysis Set included all randomized participants who received at least 1 dose of investigational product (IP). Data are presented separately for the subgroups of age <6 years old and age ≥ 6 years old to < 18 years old, because the solicited local AEs grades were determined in a different manner. Subjects analysed are the number of participants with data available for analysis.

End point type	Primary

End point timeframe:

Within 7 days postvaccination at Day 1

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: Only descriptive analyses were planned for this endpoint.

[2] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: Only descriptive analyses were planned for this endpoint.

End point values	Cohort 1: ≥18 to ≤60 Age Group: TDV	Cohort 1: ≥18 to ≤60 Age Group: Placebo	Cohort 2: ≥ 4 to <6 Age group: TDV	Cohort 2: ≥ 4 to <6 Age group: Placebo
Subject group type	Reporting group	Reporting group	Subject analysis set	Subject analysis set
Number of subjects analysed	179	59	46	14
Units: participants				
number (not applicable)				
Pain: None	152	53	42	10
Pain: Mild	25	7	4	4
Pain: Moderate	2	0	0	0
Pain: Severe	0	0	0	0
Erythema: None	177	60	46	14
Erythema: Mild	2	0	0	0
Erythema: Moderate	0	0	0	0
Erythema: Severe	0	0	0	0
Swelling: None	179	60	45	14
Swelling: Mild	0	0	1	0
Swelling: Moderate	0	0	0	0
Swelling: Severe	0	0	0	0

End point values	Cohort 2: ≥ 6 to <18 Age group: TDV	Cohort 2: ≥ 6 to < 18 Age group: Placebo		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	133	46		
Units: participants				
number (not applicable)				
Pain: None	119	42		
Pain: Mild	13	4		
Pain: Moderate	1	0		
Pain: Severe	0	0		
Erythema: None	133	46		
Erythema: Mild	0	0		
Erythema: Moderate	0	0		
Erythema: Severe	0	0		

Swelling: None	132	46		
Swelling: Mild	1	0		
Swelling: Moderate	0	0		
Swelling: Severe	0	0		

Statistical analyses

No statistical analyses for this end point

Primary: Number of Participants with Solicited Local Injection Site AEs, by Severity Within 7 Days Post Vaccination at Day 90

End point title	Number of Participants with Solicited Local Injection Site AEs, by Severity Within 7 Days Post Vaccination at Day 90 [3][4]

End point description:

Solicited local AEs at injection site were defined as injection site pain, injection site erythema, and injection site swelling. The AEs were graded by investigator as Grade 0: none, Grade 1: mild, Grade 2: moderate and Grade 3: severe. Safety Analysis Set included all randomized participants who received at least 1 dose of IP. Data are presented separately for the subgroups of age <6 years old and age ≥ 6 years old to < 18 years old, because the solicited local AEs grades were determined in a different manner. Subjects analysed are the number of participants with data available for analysis.

End point type	Primary

End point timeframe:

Within 7 days postvaccination at Day 90

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: Only descriptive analyses were planned for this endpoint.

[4] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: Only descriptive analyses were planned for this endpoint.

End point values	Cohort 1: ≥18 to ≤60 Age Group: TDV	Cohort 1: ≥18 to ≤60 Age Group: Placebo	Cohort 2: ≥ 4 to <6 Age group: TDV	Cohort 2: ≥ 4 to <6 Age group: Placebo
Subject group type	Reporting group	Reporting group	Subject analysis set	Subject analysis set
Number of subjects analysed	176	59	46	14
Units: participants				
number (not applicable)				
Pain: None	163	55	44	14
Pain: Mild	12	3	2	0
Pain: Moderate	1	1	0	0
Pain: Severe	0	0	0	0
Erythema: None	176	59	46	14
Erythema: Mild	0	0	0	0
Erythema: Moderate	0	0	0	0
Erythema: Severe	0	0	0	0
Swelling: None	176	59	46	14
Swelling: Mild	0	0	0	0
Swelling: Moderate	0	0	0	0
Swelling: Severe	0	0	0	0

End point values	Cohort 2: ≥ 6 to <18 Age group: TDV	Cohort 2: ≥ 6 to < 18 Age group: Placebo		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	132	45		
Units: participants				
number (not applicable)				
Pain: None	117	41		
Pain: Mild	14	4		
Pain: Moderate	1	0		
Pain: Severe	0	0		
Erythema: None	132	45		
Erythema: Mild	0	0		
Erythema: Moderate	0	0		
Erythema: Severe	0	0		
Swelling: None	132	45		
Swelling: Mild	0	0		
Swelling: Moderate	0	0		
Swelling: Severe	0	0		

Statistical analyses

No statistical analyses for this end point

Primary: Number of Participants with Solicited Systemic AEs by Severity Within 14 Days Post Vaccination at Day 1 for Age Group Less Than 6 Years

End point title	Number of Participants with Solicited Systemic AEs by Severity Within 14 Days Post Vaccination at Day 1 for Age Group Less Than 6 Years[5]

End point description:

An AE is defined as any untoward medical occurrence in a clinical investigation participant administered a drug; it does not necessarily have to have a causal relationship with this treatment. Solicited systemic AEs assessments for children <6 years old comprised: drowsiness, irritability/fussiness, loss of appetite and fever. The AEs were graded by investigator as Grade 0: none, Grade 1: mild, Grade 2: moderate and Grade 3: severe. Safety Analysis Set included all randomized participants who received at least 1 dose of IP. Data are presented separately for the subgroups of age <6 years old and age ≥ 6 years old to < 18 years old, because the solicited systemic AEs grades are based on different assessments. Subjects analysed are the number of participants with data available for analysis.

End point type	Primary

End point timeframe:

Within 14 days postvaccination at Day 1

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: Only descriptive analyses were planned for this endpoint.

End point values	Cohort 2: ≥ 4 to <6 Age group: TDV	Cohort 2: ≥ 4 to <6 Age group: Placebo		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	46	14		
Units: participants				
number (not applicable)				
Irritability Or Fussiness: None	45	13		
Irritability Or Fussiness: Mild	1	1		
Irritability Or Fussiness: Moderate	0	0		
Irritability Or Fussiness: Severe	0	0		
Drowsiness: None	45	13		
Drowsiness: Mild	1	1		
Drowsiness: Moderate	0	0		
Drowsiness: Severe	0	0		
Loss Of Appetite: None	46	14		
Loss Of Appetite: Mild	0	0		
Loss Of Appetite: Moderate	0	0		
Loss Of Appetite: Severe	0	0		
Fever: None	46	16		
Fever: 38.0-< 38.5	0	0		
Fever: 38.5- <39.0	0	0		
Fever: 39.0 -< 39.5	0	0		
Fever: 39.5-< 40.0	0	0		
Fever: 40.0 -< 40.5	0	0		
Fever: 40.5 -<41.0	0	0		
Fever: ≥ 41.0	0	0		

Statistical analyses

No statistical analyses for this end point

Primary: Number of Participants with Solicited Systemic AEs by Severity Within 14 Days Post Vaccination at Day 1 for Age Group More Than 6 Years

End point title	Number of Participants with Solicited Systemic AEs by Severity Within 14 Days Post Vaccination at Day 1 for Age Group More Than 6 Years[6][7]

End point description:

An AE is defined as any untoward medical occurrence in a clinical investigation participant administered a drug; it does not necessarily have to have a causal relationship with this treatment. Solicited systemic AEs assessments for children ≥ 6 years old/adolescents/adults comprised: headache, asthenia, malaise, myalgia and fever. The AEs were graded by investigator as Grade 0: none, Grade 1: mild, Grade 2: moderate and Grade 3: severe. Safety Analysis Set included all randomized participants who received at least 1 dose of IP. Data are presented separately for the subgroups of age <6 years old and age ≥ 6 years old to < 18 years old, because the solicited systemic AEs grades are based on different manner. Subjects analysed are the number of participants with data available for analysis.

End point type	Primary

End point timeframe:

Within 14 days postvaccination at Day 1

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: Only descriptive analyses were planned for this endpoint.

[7] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: Only descriptive analyses were planned for this endpoint.

End point values	Cohort 1: ≥18 to ≤60 Age Group: TDV	Cohort 1: ≥18 to ≤60 Age Group: Placebo	Cohort 2: ≥ 6 to <18 Age group: TDV	Cohort 2: ≥ 6 to < 18 Age group: Placebo
Subject group type	Reporting group	Reporting group	Subject analysis set	Subject analysis set
Number of subjects analysed	179	60	133	46
Units: participants				
number (not applicable)				
Headache: None	165	54	127	46
Headache: Mild	11	6	6	1
Headache: Moderate	1	0	0	0
Headache: Severe	2	0	0	0
Asthenia: None	168	56	126	44
Asthenia: Mild	11	4	6	2
Asthenia: Moderate	0	0	1	0
Asthenia: Severe	0	0	0	0
Malaise: None	174	57	130	46
Malaise: Mild	5	3	2	0
Malaise: Moderate	0	0	1	0
Malaise: Severe	0	0	0	0
Myalgia: None	168	56	128	45
Myalgia: Mild	10	3	4	1
Myalgia: Moderate	1	1	1	0
Myalgia: Severe	0	0	0	0
Fever: None	178	58	131	45
Fever: 38.0-< 38.5	0	2	1	0
Fever: 38.5- <39.0	0	0	0	0
Fever: 39.0 -< 39.5	0	0	0	1
Fever: 39.5-< 40.0	0	0	0	0
Fever: 40.0 -< 40.5	1	0	1	0
Fever: 40.5 -<41.0	0	0	0	0
Fever: ≥ 41.0	0	0	0	0

Statistical analyses

No statistical analyses for this end point

Primary: Number of Participants with Solicited Systemic AEs, by Severity Within 14 Days Post Vaccination at Day 90 for Age Group Less Than 6 Years

End point title	Number of Participants with Solicited Systemic AEs, by Severity Within 14 Days Post Vaccination at Day 90 for Age Group Less Than 6 Years[8]

End point description:

An AE is defined as any untoward medical occurrence in a clinical investigation participant administered a drug; it does not necessarily have to have a causal relationship with this treatment. Solicited systemic AEs assessments for children <6 years old comprised: drowsiness, irritability/fussiness, loss of appetite and fever. The AEs were graded by investigator as Grade 0: none, Grade 1: mild, Grade 2: moderate and Grade 3: severe. Safety Analysis Set included all randomized participants who received at least 1 dose of IP. Data are presented separately for the subgroups of age <6 years old and age ≥ 6 years old

to < 18 years old, because the solicited systemic AEs grades are based on different assessments. Subjects analysed are the number of participants with data available for analysis.

End point type	Primary

End point timeframe:

Within 14 days postvaccination at Day 1

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: Only descriptive analyses were planned for this endpoint.

End point values	Cohort 2: ≥ 4 to <6 Age group: TDV	Cohort 2: ≥ 4 to <6 Age group: Placebo		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	46	14		
Units: participants				
number (not applicable)				
Irritability Or Fussiness: None	38	14		
Irritability Or Fussiness: Mild	0	0		
Irritability Or Fussiness: Moderate	0	0		
Irritability Or Fussiness: Severe	0	0		
Drowsiness: None	37	13		
Drowsiness: Mild	1	1		
Drowsiness: Moderate	0	0		
Drowsiness: Severe	0	0		
Loss Of Appetite: None	38	13		
Loss Of Appetite: Mild	0	1		
Loss Of Appetite: Moderate	0	0		
Loss Of Appetite: Severe	0	0		
Fever: None	46	14		
Fever: 38.0-< 38.5	0	0		
Fever: 38.5- <39.0	0	0		
Fever: 39.0 -< 39.5	0	0		
Fever: 39.5-< 40.0	0	0		
Fever: 40.0 -< 40.5	0	0		
Fever: 40.5 -<41.0	0	0		
Fever: ≥ 41.0	0	0		

Statistical analyses

No statistical analyses for this end point

Primary: Number of Participants with Solicited Systemic AEs, by Severity Within 14 Days Post Vaccination at Day 90 for Age Group More Than 6 Years

End point title	Number of Participants with Solicited Systemic AEs, by Severity Within 14 Days Post Vaccination at Day 90 for Age Group More Than 6 Years[9][10]

End point description:

An AE is defined as any untoward medical occurrence in a clinical investigation participant administered a drug; it does not necessarily have to have a causal relationship with this treatment. Solicited systemic AEs assessments for children ≥ 6 years old/adolescents/adults comprised: headache, asthenia, malaise, myalgia and fever. The AEs were graded by investigator as Grade 0: none, Grade 1: mild, Grade 2:

moderate and Grade 3: severe. Safety Analysis Set included all randomized participants who received at least 1 dose of IP. Data are presented separately for the subgroups of age <6 years old and age ≥ 6 years old to < 18 years old, because the solicited systemic AEs grades are based on different assessments. Subjects analysed are the number of participants with data available for analysis.

End point type	Primary

End point timeframe:

Within 14 days postvaccination at Day 90

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: Only descriptive analyses were planned for this endpoint.

[10] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.
Justification: Only descriptive analyses were planned for this endpoint.

End point values	Cohort 1: ≥18 to ≤60 Age Group: TDV	Cohort 1: ≥18 to ≤60 Age Group: Placebo	Cohort 2: ≥ 6 to <18 Age group: TDV	Cohort 2: ≥ 6 to < 18 Age group: Placebo
Subject group type	Reporting group	Reporting group	Subject analysis set	Subject analysis set
Number of subjects analysed	176	59	132	45
Units: participants				
number (not applicable)				
Headache: None	169	59	129	45
Headache: Mild	6	0	3	0
Headache: Moderate	1	0	0	0
Headache: Severe	0	0	0	0
Asthenia: None	172	58	129	44
Asthenia: Mild	3	1	3	1
Asthenia: Moderate	1	0	0	0
Asthenia: Severe	0	0	0	0
Malaise: None	173	59	132	45
Malaise: Mild	3	0	0	0
Malaise: Moderate	0	0	0	0
Malaise: Severe	0	0	0	0
Myalgia: None	173	59	129	44
Myalgia: Mild	1	0	3	1
Myalgia: Moderate	2	0	0	0
Myalgia: Severe	0	0	0	0
Fever: None	172	57	129	44
Fever: 38.0 -<38.5	3	1	2	0
Fever: 38.5 -<39.0	1	1	0	1
Fever: 39.0 -<39.5	0	0	0	0
Fever: 39.5 -<40.0	0	0	0	0
Fever: 40.0 -<40.5	0	0	1	0
Fever: 40.5- <41.0	0	0	0	0
Fever: ≥ 41.0	0	0	0	0

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Participants with Any Unsolicited AEs Within 28 Days Post Vaccination at Day 1

End point title	Percentage of Participants with Any Unsolicited AEs Within 28 Days Post Vaccination at Day 1 [11]

End point description:

An AE is defined as any untoward medical occurrence in a clinical investigation participant administered a drug; it does not necessarily have to have a causal relationship with this treatment. Safety Analysis Set included all randomized participants who received at least 1 dose of IP.

End point type	Primary

End point timeframe:

Within 28 days postvaccination at Day 1

Notes:

[11] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: Only descriptive analyses were planned for this endpoint.

End point values	Cohort 1: ≥18 to ≤60 Age Group: TDV	Cohort 1: ≥18 to ≤60 Age Group: Placebo	Cohort 2: ≥4 to <18 Age Group: TDV	Cohort 2: ≥4 to <18 Age Group: Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	180	60	180	60
Units: percentage of participants				
number (not applicable)	2.2	1.7	2.2	1.7

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Participants with Any Unsolicited AEs Within 28 Days Post Vaccination at Day 90

End point title	Percentage of Participants with Any Unsolicited AEs Within 28 Days Post Vaccination at Day 90[12]

End point description:

An AE is defined as any untoward medical occurrence in a clinical investigation participant administered a drug; it does not necessarily have to have a causal relationship with this treatment. Safety Analysis Set included all randomized participants who received at least 1 dose of IP.

End point type	Primary

End point timeframe:

Within 28 days postvaccination at Day 90

Notes:

[12] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: Only descriptive analyses were planned for this endpoint.

End point values	Cohort 1: ≥18 to ≤60 Age Group: TDV	Cohort 1: ≥18 to ≤60 Age Group: Placebo	Cohort 2: ≥4 to <18 Age Group: TDV	Cohort 2: ≥4 to <18 Age Group: Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	180	60	180	60
Units: percentage of participants				
number (not applicable)	1.7	3.4	4.5	3.4

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Participants with an AE Leading to Participant Withdrawal from Trial

End point title	Percentage of Participants with an AE Leading to Participant Withdrawal from Trial [13]

End point description:

An AE is defined as any untoward medical occurrence in a clinical investigation participant administered a drug; it does not necessarily have to have a causal relationship with this treatment. Safety Analysis Set included all randomized participants who received at least 1 dose of IP.

End point type	Primary

End point timeframe:

From first vaccination on Day 1 through the end of trial (up to Day 270)

Notes:

[13] - 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: Only descriptive analyses were planned for this endpoint.

End point values	Cohort 1: ≥18 to ≤60 Age Group: TDV	Cohort 1: ≥18 to ≤60 Age Group: Placebo	Cohort 2: ≥4 to <18 Age Group: TDV	Cohort 2: ≥4 to <18 Age Group: Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	180	60	180	60
Units: percentage of participants				
number (not applicable)	0.6	0	0	0

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Participants with an AE Leading to TDV or Placebo Discontinuation

End point title	Percentage of Participants with an AE Leading to TDV or Placebo Discontinuation [14]

End point description:

An AE is defined as any untoward medical occurrence in a clinical investigation participant administered a drug; it does not necessarily have to have a causal relationship with this treatment. Safety Analysis Set included all randomized participants who received at least 1 dose of IP.

End point type	Primary

End point timeframe:

From first vaccination on Day 1 through the end of trial (up to Day 270)

Notes:

[14] - 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: Only descriptive analyses were planned for this endpoint.

End point values	Cohort 1: ≥18 to ≤60 Age Group: TDV	Cohort 1: ≥18 to ≤60 Age Group: Placebo	Cohort 2: ≥4 to <18 Age Group: TDV	Cohort 2: ≥4 to <18 Age Group: Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	180	60	180	60
Units: percentage of participants				
number (not applicable)	0.6	0	0	0

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Participants with a Medically-attended AE (MAAE)

End point title	Percentage of Participants with a Medically-attended AE (MAAE)[15]

End point description:

MAAEs are defined as AEs leading to an unscheduled visit to or by a healthcare professional including visits to an emergency department but not fulfilling seriousness criteria. Safety Analysis Set included all randomized participants who received at least 1 dose of IP.

End point type	Primary

End point timeframe:

From first vaccination on Day 1 through the end of trial (up to Day 270)

Notes:

[15] - 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: Only descriptive analyses were planned for this endpoint.

End point values	Cohort 1: ≥18 to ≤60 Age Group: TDV	Cohort 1: ≥18 to ≤60 Age Group: Placebo	Cohort 2: ≥4 to <18 Age Group: TDV	Cohort 2: ≥4 to <18 Age Group: Placebo
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	180	60	180	60
Units: percentage of participants				
number (not applicable)	11.1	6.7	14.4	16.7

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Participants with a Serious Adverse Event (SAE)

End point title	Percentage of Participants with a Serious Adverse Event (SAE)[16]

End point description:

An AE is defined as any untoward medical occurrence in a clinical investigation participant administered a drug; it does not necessarily have to have a causal relationship with this treatment. An SAE is defined as any untoward medical occurrence that: results in death, is life-threatening, requires inpatient

hospitalization or prolongation of existing hospitalization, results in persistent or significant disability/ incapacity, leads to a congenital anomaly/birth defect in the offspring of a participant, is an important medical event. Safety Analysis Set included all randomized participants who received at least 1 dose of IP.

End point type	Primary

End point timeframe:

From first vaccination on Day 1 through the end of trial (up to Day 270)

Notes:

[16] - 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: Only descriptive analyses were planned for this endpoint.

End point values	Cohort 1 and 2 Combined: TDV	Cohort 1 and 2 Combined: Placebo		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	360	120		
Units: percentage of participants				
number (not applicable)	0	0		

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

From Day 1 through end of trial on Day 270; Non-serious adverse events: Up to 28 days (day of vaccination + 27 days) following administration of TDV or placebo

Adverse event reporting additional description:

The Safety Analysis Set included all randomized participants who received at least 1 dose of IP.

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	28.0

Reporting groups

Reporting group title	Cohort 1: >=18 to <=60 Age Group: TDV

Reporting group description:

Participants randomized to receive TDV subcutaneous (SC) injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.

Reporting group title	Cohort 2: >=4 to <18 Age Group: Placebo

Reporting group description:

Participants received TDV-matching placebo SC injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.

Reporting group title	Cohort 2: >=4 to <18 Age Group: TDV

Reporting group description:

Participants received TDV SC injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.

Reporting group title	Cohort 1: >=18 to <=60 Age Group: Placebo

Reporting group description:

Participants received TDV-matching placebo SC injection on Day 1 (Month 0) and Day 90 (Month 3) of the study.

Serious adverse events	Cohort 1: >=18 to <=60 Age Group: TDV	Cohort 2: >=4 to <18 Age Group: Placebo	Cohort 2: >=4 to <18 Age Group: TDV
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 180 (0.00%)	0 / 60 (0.00%)	0 / 180 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0

Serious adverse events	Cohort 1: >=18 to <=60 Age Group: Placebo		
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 60 (0.00%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		

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

Non-serious adverse events	Cohort 1: >=18 to <=60 Age Group: TDV	Cohort 2: >=4 to <18 Age Group: Placebo	Cohort 2: >=4 to <18 Age Group: TDV
Total subjects affected by non-serious adverse events			
subjects affected / exposed	53 / 180 (29.44%)	15 / 60 (25.00%)	52 / 180 (28.89%)
Investigations			
Body temperature			
subjects affected / exposed	5 / 180 (2.78%)	1 / 60 (1.67%)	5 / 180 (2.78%)
occurrences (all)	10	6	6
Nervous system disorders			
Headache			
subjects affected / exposed	20 / 180 (11.11%)	1 / 60 (1.67%)	8 / 180 (4.44%)
occurrences (all)	42	3	18
General disorders and administration site conditions			
Asthenia			
subjects affected / exposed	15 / 180 (8.33%)	3 / 60 (5.00%)	10 / 180 (5.56%)
occurrences (all)	37	11	26
Pain			
subjects affected / exposed	38 / 180 (21.11%)	15 / 60 (25.00%)	41 / 180 (22.78%)
occurrences (all)	89	23	74
Musculoskeletal and connective tissue disorders			
Myalgia			
subjects affected / exposed	14 / 180 (7.78%)	2 / 60 (3.33%)	7 / 180 (3.89%)
occurrences (all)	35	6	17

Non-serious adverse events	Cohort 1: >=18 to <=60 Age Group: Placebo		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	19 / 60 (31.67%)		
Investigations			
Body temperature			
subjects affected / exposed	4 / 60 (6.67%)		
occurrences (all)	7		
Nervous system disorders			
Headache			

subjects affected / exposed occurrences (all)	7 / 60 (11.67%) 18		
General disorders and administration site conditions Asthenia subjects affected / exposed occurrences (all) Pain subjects affected / exposed occurrences (all)	 5 / 60 (8.33%) 13 8 / 60 (13.33%) 17		
Musculoskeletal and connective tissue disorders Myalgia subjects affected / exposed occurrences (all)	 4 / 60 (6.67%) 8		

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