



Clinical trial results:

Imovax® Rabies and VERORAB® Immunogenicity and Safety after One Week 2-sites Intradermal or 1-site Intramuscular Pre- Exposure Prophylaxis Regimens, Followed by a Simulated Intradermal or Intramuscular Post-Exposure Prophylaxis Regimen at One Year Summary

EudraCT number	2020-001223-14
Trial protocol	Outside EU/EEA
Global end of trial date	08 April 2020

Results information

Result version number	v1
This version publication date	14 April 2021
First version publication date	14 April 2021

Trial information

Trial identification

Sponsor protocol code	VAJ00001
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Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT03700242
WHO universal trial number (UTN)	U1111-1183-5743

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	18 January 2021
Is this the analysis of the primary completion data?	No
Global end of trial reached?	Yes
Global end of trial date	08 April 2020
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To demonstrate that a short intramuscular (IM) pre-exposure prophylaxis (PrEP) regimen is non-inferior to the reference IM PrEP regimen in terms of seroconversion rate 14 days (D) after the last PrEP vaccination (Vacc.) with human diploid cell vaccine (HDCV) (Group 1 versus Group 2).

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	26 September 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	Philippines: 570
Worldwide total number of subjects	570
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)	165
Adolescents (12-17 years)	91
Adults (18-64 years)	314
From 65 to 84 years	0
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

The study was conducted at 2 centres in the Philippines. A total of 570 subjects were enrolled between 26 September 2018 and 19 February 2019.

Pre-assignment

Screening details:

A total of 570 subjects were enrolled and randomised in the study.

Period 1

Period 1 title	PrEP vaccination phase: up to 6.5 Months
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Not blinded

Arms

Are arms mutually exclusive?	Yes
Arm title	Group 1: Short HDCV IM PrEP Regimen

Arm description:

Subjects received a single IM dose of HDCV on Day 0 and Day 7 and were followed up to 1 year post last PrEP vaccination.

Arm type	Experimental
Investigational medicinal product name	Human Diploid Cell Vaccine
Investigational medicinal product code	
Other name	Imovax® Rabies
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

1 millilitre (mL), single IM injection on the deltoid area of the arm.

Arm title	Group 2: Reference HDCV IM PrEP Regimen
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Arm description:

Subjects received a single IM dose of HDCV on Day 0, Day 7, and Day 21 and were followed up to 1 year post last PrEP vaccination.

Arm type	Active comparator
Investigational medicinal product name	Human Diploid Cell Vaccine
Investigational medicinal product code	
Other name	Imovax® Rabies
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

1 mL, single IM injection on the deltoid area of the arm.

Arm title	Group 3: Short HDCV Intradermal (ID) PrEP regimen
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Arm description:

Subjects received two ID doses of HDCV on Day 0 and Day 7 and were followed up to 1 year post last PrEP vaccination.

Arm type	Experimental
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Investigational medicinal product name	Human Diploid Cell Vaccine
Investigational medicinal product code	
Other name	Imovax® Rabies
Pharmaceutical forms	Suspension for injection
Routes of administration	Intradermal use

Dosage and administration details:

0.1 mL, two injections on deltoid area of both the arm.

Arm title	Group 4: Short PVRV IM PrEP regimen
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Arm description:

Subjects received a single IM dose of purified Vero cell rabies vaccine (PVRV) on Day 0 and Day 7 and were followed up to 1 year post last PrEP vaccination.

Arm type	Experimental
Investigational medicinal product name	Purified Vero cell Rabies Vaccine
Investigational medicinal product code	
Other name	Verorab®
Pharmaceutical forms	Solution for injection
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL, single IM injection on the deltoid area of the arm.

Arm title	Group 5: Short PVRV ID PrEP regimen
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Arm description:

Subjects received two ID doses of PVRV on Day 0 and Day 7 and were followed up to 1 year post last PrEP vaccination.

Arm type	Experimental
Investigational medicinal product name	Purified Vero cell Rabies Vaccine
Investigational medicinal product code	
Other name	Verorab®
Pharmaceutical forms	Solution for injection
Routes of administration	Intradermal use

Dosage and administration details:

0.1 mL, two ID injections on deltoid area of both the arms.

Number of subjects in period 1	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen	Group 3: Short HDCV Intradermal (ID) PrEP regimen
Started	228	115	77
Completed	227	115	77
Not completed	1	0	0
Voluntary withdrawal not due to an adverse event	1	-	-

Number of subjects in period 1	Group 4: Short PVRV IM PrEP regimen	Group 5: Short PVRV ID PrEP regimen
Started	75	75
Completed	75	74
Not completed	0	1
Voluntary withdrawal not due to an adverse event	-	1

Period 2	
Period 2 title	PEP Vaccination Phase: up to 5.8 Months
Is this the baseline period?	No
Allocation method	Randomised - controlled
Blinding used	Not blinded
Arms	
Are arms mutually exclusive?	Yes
Arm title	Group 1: Short HDCV IM Post-exposure Prophylaxis (PEP) Regimen
Arm description:	
Pre-immunised subjects received a single IM dose of HDCV on Year 1 and Year 1 + 3 days, post last PrEP vaccination and were followed up for 31 days post last PEP vaccination.	
Arm type	Experimental
Investigational medicinal product name	Human Diploid Cell Vaccine
Investigational medicinal product code	
Other name	Imovax® Rabies
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use
Dosage and administration details:	
1 mL, single IM injection on the deltoid area of the arm.	
Arm title	Group 2: Reference HDCV IM PEP Regimen
Arm description:	
Pre-immunised subjects received a single IM dose of HDCV on Year 1 and Year 1 + 3 days, post last PrEP vaccination and were followed up for 31 days post last PEP vaccination.	
Arm type	Active comparator
Investigational medicinal product name	Human Diploid Cell Vaccine
Investigational medicinal product code	
Other name	Imovax® Rabies
Pharmaceutical forms	Suspension for injection
Routes of administration	Intramuscular use
Dosage and administration details:	
1 mL, single IM injection on the deltoid area of the arm.	
Arm title	Group 3: Short HDCV ID PEP regimen
Arm description:	
Pre-immunised subjects received a single ID dose of HDCV on Year 1 and Year 1 + 3 days, post last PrEP vaccination and were followed up for 31 days post last PEP vaccination.	
Arm type	Experimental
Investigational medicinal product name	Human Diploid Cell Vaccine
Investigational medicinal product code	
Other name	Imovax® Rabies
Pharmaceutical forms	Suspension for injection
Routes of administration	Intradermal use
Dosage and administration details:	
0.1 mL, single ID injection on deltoid area of both the arm.	
Arm title	Group 4: Short PVRV IM PEP regimen
Arm description:	
Pre-immunised subjects received a single IM dose of PVRV on Year 1 and on Year 1 + 3 days, post last PrEP vaccination and were followed up for 31 days post last PEP vaccination.	

Arm type	Experimental
Investigational medicinal product name	Purified Vero cell Rabies Vaccine
Investigational medicinal product code	
Other name	Verorab®
Pharmaceutical forms	Solution for injection
Routes of administration	Intramuscular use

Dosage and administration details:

0.5 mL, single IM injection on the deltoid area of the arm.

Arm title	Group 5: Short PVRV ID PEP regimen
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Arm description:

Pre-immunised subjects received a single ID dose of PVRV on Year 1 and Year 1 + 3 days, post last PrEP vaccination and were followed up for 31 days post last PEP vaccination.

Arm type	Experimental
Investigational medicinal product name	Purified Vero cell Rabies Vaccine
Investigational medicinal product code	
Other name	Verorab®
Pharmaceutical forms	Solution for injection
Routes of administration	Intradermal use

Dosage and administration details:

0.1 mL, single ID injection on deltoid area of both the arms.

Number of subjects in period 2^[1]	Group 1: Short HDCV IM Post-exposure Prophylaxis (PEP) Regimen	Group 2: Reference HDCV IM PEP Regimen	Group 3: Short HDCV ID PEP regimen
Started	200	107	68
Completed	199	107	68
Not completed	1	0	0
Voluntary withdrawal not due to an adverse event	1	-	-

Number of subjects in period 2^[1]	Group 4: Short PVRV IM PEP regimen	Group 5: Short PVRV ID PEP regimen
Started	68	71
Completed	68	71
Not completed	0	0
Voluntary withdrawal not due to an adverse event	-	-

Notes:

[1] - The number of subjects starting the period is not consistent with the number completing the preceding period. It is expected the number of subjects starting the subsequent period will be the same as the number completing the preceding period.

Justification: Post PrEP phase, only pre-immunised subjects were vaccinated with a simulated PEP regimen.

Baseline characteristics

Reporting groups

Reporting group title	Group 1: Short HDCV IM PrEP Regimen
Reporting group description: Subjects received a single IM dose of HDCV on Day 0 and Day 7 and were followed up to 1 year post last PrEP vaccination.	
Reporting group title	Group 2: Reference HDCV IM PrEP Regimen
Reporting group description: Subjects received a single IM dose of HDCV on Day 0, Day 7, and Day 21 and were followed up to 1 year post last PrEP vaccination.	
Reporting group title	Group 3: Short HDCV Intradermal (ID) PrEP regimen
Reporting group description: Subjects received two ID doses of HDCV on Day 0 and Day 7 and were followed up to 1 year post last PrEP vaccination.	
Reporting group title	Group 4: Short PVRV IM PrEP regimen
Reporting group description: Subjects received a single IM dose of purified Vero cell rabies vaccine (PVRV) on Day 0 and Day 7 and were followed up to 1 year post last PrEP vaccination.	
Reporting group title	Group 5: Short PVRV ID PrEP regimen
Reporting group description: Subjects received two ID doses of PVRV on Day 0 and Day 7 and were followed up to 1 year post last PrEP vaccination.	

Reporting group values	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen	Group 3: Short HDCV Intradermal (ID) PrEP regimen
Number of subjects	228	115	77
Age categorical Units: Subjects			

Age continuous Units: years arithmetic mean standard deviation	22.5 ± 13.63	24.1 ± 14.74	19.2 ± 12.98
Gender categorical Units: Subjects			
Female	113	67	41
Male	115	48	36

Reporting group values	Group 4: Short PVRV IM PrEP regimen	Group 5: Short PVRV ID PrEP regimen	Total
Number of subjects	75	75	570
Age categorical Units: Subjects			

Age continuous Units: years arithmetic mean standard deviation	22.6 ± 14.19	23.8 ± 15.33	-
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Gender categorical			
Units: Subjects			
Female	41	39	301
Male	34	36	269

End points

End points reporting groups

Reporting group title	Group 1: Short HDCV IM PrEP Regimen
Reporting group description: Subjects received a single IM dose of HDCV on Day 0 and Day 7 and were followed up to 1 year post last PrEP vaccination.	
Reporting group title	Group 2: Reference HDCV IM PrEP Regimen
Reporting group description: Subjects received a single IM dose of HDCV on Day 0, Day 7, and Day 21 and were followed up to 1 year post last PrEP vaccination.	
Reporting group title	Group 3: Short HDCV Intradermal (ID) PrEP regimen
Reporting group description: Subjects received two ID doses of HDCV on Day 0 and Day 7 and were followed up to 1 year post last PrEP vaccination.	
Reporting group title	Group 4: Short PVRV IM PrEP regimen
Reporting group description: Subjects received a single IM dose of purified Vero cell rabies vaccine (PVRV) on Day 0 and Day 7 and were followed up to 1 year post last PrEP vaccination.	
Reporting group title	Group 5: Short PVRV ID PrEP regimen
Reporting group description: Subjects received two ID doses of PVRV on Day 0 and Day 7 and were followed up to 1 year post last PrEP vaccination.	
Reporting group title	Group 1: Short HDCV IM Post-exposure Prophylaxis (PEP) Regimen
Reporting group description: Pre-immunised subjects received a single IM dose of HDCV on Year 1 and Year 1 + 3 days, post last PrEP vaccination and were followed up for 31 days post last PEP vaccination.	
Reporting group title	Group 2: Reference HDCV IM PEP Regimen
Reporting group description: Pre-immunised subjects received a single IM dose of HDCV on Year 1 and Year 1 + 3 days, post last PrEP vaccination and were followed up for 31 days post last PEP vaccination.	
Reporting group title	Group 3: Short HDCV ID PEP regimen
Reporting group description: Pre-immunised subjects received a single ID dose of HDCV on Year 1 and Year 1 + 3 days, post last PrEP vaccination and were followed up for 31 days post last PEP vaccination.	
Reporting group title	Group 4: Short PVRV IM PEP regimen
Reporting group description: Pre-immunised subjects received a single IM dose of PVRV on Year 1 and on Year 1 + 3 days, post last PrEP vaccination and were followed up for 31 days post last PEP vaccination.	
Reporting group title	Group 5: Short PVRV ID PEP regimen
Reporting group description: Pre-immunised subjects received a single ID dose of PVRV on Year 1 and Year 1 + 3 days, post last PrEP vaccination and were followed up for 31 days post last PEP vaccination.	

Primary: Percentage of Subjects With Rabies Virus Neutralising Antibodies (RVNA) Titer Greater Than or Equal to (\geq) 0.5 International Units Per Millilitre (IU/mL) After Last PrEP Vaccination with HDCV: Group 1 and Group 2

End point title	Percentage of Subjects With Rabies Virus Neutralising Antibodies (RVNA) Titer Greater Than or Equal to (\geq) 0.5 International Units Per Millilitre (IU/mL) After Last PrEP Vaccination with HDCV: Group 1 and Group 2 ^[1]
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End point description:

RVNA titer was assessed using the rapid fluorescent focus inhibition test (RFFIT) assay method. Analysis was performed on the PrEP Per-Protocol Analysis Set (PPAS) that included all randomised subjects who received at least one dose of the study vaccines during the PrEP period and had no relevant protocol deviations.

End point type	Primary
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End point timeframe:

14 days after last PrEP vaccination (i.e. Day 21 for Group 1; Day 35 for Group 2)

Notes:

[1] - 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: Data for this endpoint was not planned to be collected and analysed for Group 3, 4 and 5, as pre-specified in protocol.

End point values	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	209	109		
Units: percentage of subjects				
number (confidence interval 95%)	96.7 (93.2 to 98.6)	100.0 (96.7 to 100.0)		

Statistical analyses

Statistical analysis title	Group 1 versus Group 2
Comparison groups	Group 1: Short HDCV IM PrEP Regimen v Group 2: Reference HDCV IM PrEP Regimen
Number of subjects included in analysis	318
Analysis specification	Pre-specified
Analysis type	non-inferiority ^[2]
Parameter estimate	Difference in percentage
Point estimate	-3.349
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.751
upper limit	0.464

Notes:

[2] - Non-inferiority was demonstrated if the lower limit of the 95% confidence interval of the difference of the 2 percentages (Group1-Group2) was greater than (>) -5%.

Secondary: Percentage of Subjects With RVNA Titer \geq 0.5 IU/mL at Day 0 (pre-vaccination) and 14 Days After Last PrEP Vaccination with HDCV or PVRV

End point title	Percentage of Subjects With RVNA Titer \geq 0.5 IU/mL at Day 0 (pre-vaccination) and 14 Days After Last PrEP Vaccination with HDCV or PVRV
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End point description:

RVNA titer was assessed using the RFFIT assay method. Analysis was performed on the PrEP Full Analysis Set (FAS) that included all randomised subjects who received at least 1 dose of the study vaccines during the PrEP period. Here, 'n' = subjects with available data for each specified category. Here, '99999' was used as space fillers and signifies that the subjects of the respective groups did not receive any vaccination at the specified time-point and therefore were not evaluable.

End point type	Secondary
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End point timeframe:

Day 0 (pre-vaccination) and 14 days after last PrEP vaccination (i.e. Day 21 for Groups 1, 3, 4 and 5; Day 35 for Group 2)

End point values	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen	Group 3: Short HDCV Intradermal (ID) PrEP regimen	Group 4: Short PVRV IM PrEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	228	115	77	75
Units: percentage of subjects				
number (confidence interval 95%)				
Day 0 (n=226, 115, 76, 74, 73)	0.4 (0.0 to 2.4)	2.6 (0.5 to 7.4)	1.3 (0.0 to 7.1)	1.4 (0.0 to 7.3)
Day 21 (n=214, 0, 74, 70, 71)	96.7 (93.4 to 98.7)	99999 (99999 to 99999)	98.6 (92.7 to 100.0)	98.6 (92.3 to 100.0)
Day 35 (n= 0, 112, 0, 0, 0)	99999 (99999 to 99999)	100.0 (96.8 to 100.0)	99999 (99999 to 99999)	99999 (99999 to 99999)

End point values	Group 5: Short PVRV ID PrEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	75			
Units: percentage of subjects				
number (confidence interval 95%)				
Day 0 (n=226, 115, 76, 74, 73)	1.4 (0.0 to 7.4)			
Day 21 (n=214, 0, 74, 70, 71)	97.2 (90.2 to 99.7)			
Day 35 (n= 0, 112, 0, 0, 0)	99999 (99999 to 99999)			

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Subjects With RVNA Titer ≥ 0.2 IU/mL at Day 0 (pre-vaccination) and 14 Days After Last PrEP Vaccination with HDCV or PVRV

End point title	Percentage of Subjects With RVNA Titer ≥ 0.2 IU/mL at Day 0 (pre-vaccination) and 14 Days After Last PrEP Vaccination with HDCV or PVRV
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End point description:

RVNA titer was assessed using the RFFIT assay method. Analysis was performed on the PrEP FAS population. Here, 'n' = subjects with available data for each specified category. Here, '99999' was used as space fillers and signifies that the subjects of the respective groups did not receive any vaccination at the specified time-point and therefore were not evaluable.

End point type	Secondary
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End point timeframe:

Day 0 (pre-vaccination) and 14 days after last PrEP vaccination (i.e. Day 21 for Groups 1, 3, 4 and 5;

End point values	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen	Group 3: Short HDCV Intradermal (ID) PrEP regimen	Group 4: Short PVRV IM PrEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	228	115	77	75
Units: percentage of subjects				
number (confidence interval 95%)				
Day 0 (n=226, 115, 76, 74, 73)	1.3 (0.3 to 3.8)	2.6 (0.5 to 7.4)	1.3 (0.0 to 7.1)	4.1 (0.8 to 11.4)
Day 21 (n=214, 0, 74, 70, 71)	99.5 (97.4 to 100.0)	99999 (99999 to 99999)	100.0 (95.1 to 100.0)	100.0 (94.9 to 100.0)
Day 35 (n=0, 112, 0, 0, 0)	99999 (99999 to 99999)	100.0 (96.8 to 100.0)	99999 (99999 to 99999)	99999 (99999 to 99999)

End point values	Group 5: Short PVRV ID PrEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	75			
Units: percentage of subjects				
number (confidence interval 95%)				
Day 0 (n=226, 115, 76, 74, 73)	1.4 (0.0 to 7.4)			
Day 21 (n=214, 0, 74, 70, 71)	98.6 (92.4 to 100.0)			
Day 35 (n=0, 112, 0, 0, 0)	99999 (99999 to 99999)			

Statistical analyses

No statistical analyses for this end point

Secondary: Geometric Mean Titers (GMTs) of RVNA at Day 0 (pre-vaccination) and 14 Days After Last PrEP Vaccination with HDCV or PVRV

End point title	Geometric Mean Titers (GMTs) of RVNA at Day 0 (pre-vaccination) and 14 Days After Last PrEP Vaccination with HDCV or PVRV
End point description:	
RVNA titers was assessed using the RFFIT assay method and expressed in terms of IU/mL. Analysis was performed on the PrEP FAS population. Here, 'n'= subjects with available data for each specified category. Here, '99999' was used as space fillers and signifies that the subjects of the respective groups did not receive any vaccination at the specified time-point and therefore were not evaluable.	
End point type	Secondary
End point timeframe:	
Day 0 (pre-vaccination) and 14 days after last PrEP vaccination (i.e. Day 21 for Groups 1, 3, 4 and 5; Day 35 for Group 2)	

End point values	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen	Group 3: Short HDCV Intradermal (ID) PrEP regimen	Group 4: Short PVRV IM PrEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	228	115	77	75
Units: IU/mL				
geometric mean (confidence interval 95%)				
Day 0 (n=226, 115, 76, 74, 73)	0.102 (0.100 to 0.105)	0.109 (0.099 to 0.121)	0.102 (0.098 to 0.107)	0.110 (0.098 to 0.123)
Day 21 (n=214, 0, 74, 70, 71)	3.18 (2.76 to 3.67)	99999 (99999 to 99999)	3.30 (2.55 to 4.28)	5.06 (3.94 to 6.50)
Day 35 (n=0, 112, 0, 0, 0)	99999 (99999 to 99999)	12.6 (10.8 to 14.7)	99999 (99999 to 99999)	99999 (99999 to 99999)

End point values	Group 5: Short PVRV ID PrEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	75			
Units: IU/mL				
geometric mean (confidence interval 95%)				
Day 0 (n=226, 115, 76, 74, 73)	0.108 (0.094 to 0.124)			
Day 21 (n=214, 0, 74, 70, 71)	6.38 (4.64 to 8.77)			
Day 35 (n=0, 112, 0, 0, 0)	99999 (99999 to 99999)			

Statistical analyses

No statistical analyses for this end point

Secondary: Geometric Mean Titer Ratio (GMTR) of RVNA Following PrEP Vaccination with HDCV or PVRV

End point title	Geometric Mean Titer Ratio (GMTR) of RVNA Following PrEP Vaccination with HDCV or PVRV
End point description:	
RVNA titer was assessed using the RFFIT assay method. GMTRs were calculated as the ratio of GMTs of 14 days after last PrEP vaccination and GMTs of pre-vaccination. Analysis was performed on the PrEP FAS population. Here, 'n'= subjects with available data for each specified category. Here, '99999' was used as space fillers and signifies that the subjects of the respective groups did not receive any vaccination at the specified time-point and therefore were not evaluable.	
End point type	Secondary

End point timeframe:

Day 0 (pre-vaccination) and 14 days after last PrEP vaccination (i.e. Day 21 for Groups 1, 3, 4 and 5;

End point values	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen	Group 3: Short HDCV Intradermal (ID) PrEP regimen	Group 4: Short PVRV IM PrEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	228	115	77	75
Units: ratio				
geometric mean (confidence interval 95%)				
Day 21/Day 0 (n=212, 0, 73, 69, 70)	30.7 (26.7 to 35.2)	99999 (99999 to 99999)	31.1 (24.6 to 39.3)	44.9 (35.9 to 56.2)
Day 35/Day 0 (n=0, 112, 0, 0, 0)	99999 (99999 to 99999)	115 (98.2 to 134)	99999 (99999 to 99999)	99999 (99999 to 99999)

End point values	Group 5: Short PVRV ID PrEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	75			
Units: ratio				
geometric mean (confidence interval 95%)				
Day 21/Day 0 (n=212, 0, 73, 69, 70)	59.2 (42.8 to 81.9)			
Day 35/Day 0 (n=0, 112, 0, 0, 0)	99999 (99999 to 99999)			

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Subjects With RVNA Titer \geq 0.5 IU/mL at 6 Months and 1 Year After Last PrEP Vaccination with HDCV or PVRV

End point title	Percentage of Subjects With RVNA Titer \geq 0.5 IU/mL at 6 Months and 1 Year After Last PrEP Vaccination with HDCV or PVRV
End point description: RVNA titer was assessed using the RFFIT assay method. Analysis was performed on the PrEP FAS population. Here, 'n' = subjects with available data for each specified category.	
End point type	Secondary
End point timeframe: 6 months (i.e. Day 180) and 1 year (i.e. Year 1) after last PrEP vaccination	

End point values	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen	Group 3: Short HDCV Intradermal (ID) PrEP regimen	Group 4: Short PVRV IM PrEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	228	115	77	75
Units: percentage of subjects				
number (confidence interval 95%)				
Day 180 (n=216, 105, 73, 70, 69)	45.8 (39.1 to 52.7)	55.2 (45.2 to 65.0)	45.2 (33.5 to 57.3)	58.6 (46.2 to 70.2)
Year 1 (n=211,110,73,71,72)	57.8 (50.8 to 64.6)	62.7 (53.0 to 71.8)	58.9 (46.8 to 70.3)	64.8 (52.5 to 75.8)

End point values	Group 5: Short PVRV ID PrEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	75			
Units: percentage of subjects				
number (confidence interval 95%)				
Day 180 (n=216, 105, 73, 70, 69)	65.2 (52.8 to 76.3)			
Year 1 (n=211,110,73,71,72)	77.8 (66.4 to 86.7)			

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Subjects With RVNA Titer ≥ 0.2 IU/mL at 6 Months and 1 Year After Last PrEP Vaccination with HDCV or PVRV

End point title	Percentage of Subjects With RVNA Titer ≥ 0.2 IU/mL at 6 Months and 1 Year After Last PrEP Vaccination with HDCV or PVRV
End point description: RVNA titer was assessed using the RFFIT assay method. Analysis was performed on the PrEP FAS population. Here, 'n' = subjects with available data for each specified category.	
End point type	Secondary
End point timeframe: 6 months (i.e. Day 180) and 1 year (i.e. Year 1) after last PrEP vaccination	

End point values	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen	Group 3: Short HDCV Intradermal (ID) PrEP regimen	Group 4: Short PVRV IM PrEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	228	115	77	75
Units: percentage of subjects				
number (confidence interval 95%)				
Day 180 (n=216, 105, 73, 70, 69)	71.8 (65.3 to 77.7)	88.6 (80.9 to 94.0)	75.3 (63.9 to 84.7)	85.7 (75.3 to 92.9)
Year 1 (n=211,110,73,71,72)	78.7 (72.5 to 84.0)	86.4 (78.5 to 92.2)	89.0 (79.5 to 95.1)	87.3 (77.3 to 94.0)

End point values	Group 5: Short PVRV ID PrEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	75			
Units: percentage of subjects				
number (confidence interval 95%)				
Day 180 (n=216, 105, 73, 70, 69)	88.4 (78.4 to 94.9)			
Year 1 (n=211,110,73,71,72)	87.5 (77.6 to 94.1)			

Statistical analyses

No statistical analyses for this end point

Secondary: Geometric Mean Titers of RVNA at 6 Months and 1 Year After Last PrEP Vaccination with HDCV or PVRV

End point title	Geometric Mean Titers of RVNA at 6 Months and 1 Year After Last PrEP Vaccination with HDCV or PVRV
End point description:	
RVNA titer was assessed using the RFFIT assay method and expressed in terms of IU/mL. Analysis was performed on the PrEP FAS population. Here, 'n'= subjects with available data for each specified category.	
End point type	Secondary
End point timeframe:	
6 months (i.e. Day 180) and 1 year (i.e. Year 1) after last PrEP vaccination	

End point values	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen	Group 3: Short HDCV Intradermal (ID) PrEP regimen	Group 4: Short PVRV IM PrEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	228	115	77	75
Units: IU/mL				
geometric mean (confidence interval 95%)				
Day 180 (n=216, 105, 73, 70, 69)	0.443 (0.380 to 0.516)	0.695 (0.550 to 0.880)	0.453 (0.349 to 0.588)	0.639 (0.487 to 0.838)
Year 1 (n=211,110,73,71,72)	0.607 (0.510 to 0.723)	0.769 (0.605 to 0.979)	0.710 (0.530 to 0.950)	0.819 (0.613 to 1.09)

End point values	Group 5: Short PVRV ID PrEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	75			
Units: IU/mL				
geometric mean (confidence interval 95%)				
Day 180 (n=216, 105, 73, 70, 69)	0.808 (0.593 to 1.10)			
Year 1 (n=211,110,73,71,72)	0.934 (0.712 to 1.23)			

Statistical analyses

No statistical analyses for this end point

Secondary: Geometric Mean Titer Ratio (GMTR) of RVNA at 6 Months After Last PrEP Vaccination with HDCV or PVRV

End point title	Geometric Mean Titer Ratio (GMTR) of RVNA at 6 Months After Last PrEP Vaccination with HDCV or PVRV
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End point description:

RVNA titer was assessed using the RFFIT assay method. GMTRs were calculated as the ratio of GMTs of 6 months after last PrEP vaccination and GMTs of 14 days after last PrEP vaccination. Analysis was performed on the PrEP FASV population. Here, 'n' = subjects with available data for each specified category. Here, '99999' was used as space fillers and signifies that the subjects of the respective groups did not receive any vaccination at the specified time-point and therefore were not evaluable.

End point type	Secondary
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End point timeframe:

14 days (i.e. Day 21 for Groups 1, 3, 4 and 5; Day 35 for Group 2) and 6 months (i.e. Day 180) after last PrEP vaccination

End point values	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen	Group 3: Short HDCV Intradermal (ID) PrEP regimen	Group 4: Short PVRV IM PrEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	228	115	70	75
Units: ratio				
geometric mean (confidence interval 95%)				
Day 180/Day 21 (n=203, 0, 70, 65, 65)	0.145 (0.127 to 0.165)	99999 (99999 to 99999)	0.144 (0.118 to 0.177)	0.137 (0.113 to 0.165)
Day 180/Day 35 (n=0, 102, 0, 0, 0)	99999 (99999 to 99999)	0.057 (0.048 to 0.068)	99999 (99999 to 99999)	99999 (99999 to 99999)

End point values	Group 5: Short PVRV ID PrEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	75			
Units: ratio				
geometric mean (confidence interval 95%)				
Day 180/Day 21 (n=203, 0, 70, 65, 65)	0.130 (0.103 to 0.163)			
Day 180/Day 35 (n=0, 102, 0, 0, 0)	99999 (99999 to 99999)			

Statistical analyses

No statistical analyses for this end point

Secondary: Geometric Mean Titer Ratio (GMTR) of RVNA at 1 Year After Last PrEP Vaccination with HDCV or PVRV

End point title	Geometric Mean Titer Ratio (GMTR) of RVNA at 1 Year After Last PrEP Vaccination with HDCV or PVRV
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End point description:

RVNA titer was assessed using the RFFIT assay method. GMTRs were calculated as the ratio of GMTs of 1 year after last PrEP vaccination and GMTs of 14 days after last PrEP vaccination. Analysis was performed on the PrEP FAS population. Here, 'n' = subjects with available data for each specified category. Here, '99999' was used as space fillers and signifies that the subjects of the respective groups did not receive any vaccination at the specified time-point and therefore were not evaluable.

End point type	Secondary
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End point timeframe:

14 days (i.e. Day 21 for Groups 1, 3, 4 and 5; Day 35 for Group 2) and 1 year (i.e. Year 1) after last PrEP vaccination

End point values	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen	Group 3: Short HDCV Intradermal (ID) PrEP regimen	Group 4: Short PVRV IM PrEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	228	115	77	75
Units: ratio				
geometric mean (confidence interval 95%)				
Year 1/Day 21 (n= 198, 0, 70, 66, 69)	0.186 (0.160 to 0.218)	99999 (99999 to 99999)	0.211 (0.164 to 0.272)	0.174 (0.138 to 0.219)
Year 1/Day 35 (n=0, 107, 0, 0, 0)	99999 (99999 to 99999)	0.061 (0.050 to 0.076)	99999 (99999 to 99999)	99999 (99999 to 99999)

End point values	Group 5: Short PVRV ID PrEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	75			
Units: ratio				
geometric mean (confidence interval 95%)				
Year 1/Day 21 (n= 198, 0, 70, 66, 69)	0.162 (0.130 to 0.201)			
Year 1/Day 35 (n=0, 107, 0, 0, 0)	99999 (99999 to 99999)			

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Subjects With RVNA Titer ≥ 0.5 IU/mL at 7 Days and 14 Days After First Simulated PEP Vaccination With HDCV or PVRV

End point title	Percentage of Subjects With RVNA Titer ≥ 0.5 IU/mL at 7 Days and 14 Days After First Simulated PEP Vaccination With HDCV or PVRV
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End point description:

RVNA titer was assessed using the RFFIT assay method. Analysis was performed on the PEP FAS population that included subjects who received at least 1 dose of the study vaccines during the simulated PEP period. Here, 'n' = subjects with available data for each specified category.

End point type	Secondary
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End point timeframe:

7 days (i.e. Year 1 + 7 days) and 14 days (i.e. Year 1 + 14 days) after first simulated PEP vaccination

End point values	Group 1: Short HDCV IM Post-exposure Prophylaxis (PEP) Regimen	Group 2: Reference HDCV IM PEP Regimen	Group 3: Short HDCV ID PEP regimen	Group 4: Short PVRV IM PEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	200	107	68	68
Units: percentage of subjects				
number (confidence interval 95%)				
Year 1 + 7 days (n=198,106,68,68,71)	100.0 (98.2 to 100.0)	100.0 (96.6 to 100.0)	100.0 (94.7 to 100.0)	100.0 (94.7 to 100.0)
Year 1 + 14 days (n=193,101,66,63,70)	100.0 (98.1 to 100.0)	100.0 (96.4 to 100.0)	100.0 (94.6 to 100.0)	100.0 (94.3 to 100.0)

End point values	Group 5: Short PVRV ID PEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	71			
Units: percentage of subjects				
number (confidence interval 95%)				
Year 1 + 7 days (n=198,106,68,68,71)	98.6 (92.4 to 100.0)			
Year 1 + 14 days (n=193,101,66,63,70)	98.6 (92.3 to 100.0)			

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Subjects With RVNA Titer ≥ 0.2 IU/mL at 7 Days and 14 Days After First Simulated PEP Vaccination With HDCV or PVRV

End point title	Percentage of Subjects With RVNA Titer ≥ 0.2 IU/mL at 7 Days and 14 Days After First Simulated PEP Vaccination With HDCV or PVRV
End point description: RVNA titer was assessed using the RFFIT assay method. Analysis was performed on the PEP FAS population. Here, 'n' = subjects with available data for each specified category.	
End point type	Secondary
End point timeframe: 7 days (i.e. Year 1 + 7 days) and 14 days (i.e. Year 1 + 14 days) after first simulated PEP vaccination	

End point values	Group 1: Short HDCV IM Post-exposure Prophylaxis (PEP) Regimen	Group 2: Reference HDCV IM PEP Regimen	Group 3: Short HDCV ID PEP regimen	Group 4: Short PVRV IM PEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	200	107	68	68
Units: percentage of subjects				
number (confidence interval 95%)				
Year 1 + 7 days (n=198,106,68,68,71)	100.0 (98.2 to 100.0)	100.0 (96.6 to 100.0)	100.0 (94.7 to 100.0)	100.0 (94.7 to 100.0)
Year 1 + 14 days (n=193,101,66,63,70)	100.0 (98.1 to 100.0)	100.0 (96.4 to 100.0)	100.0 (94.6 to 100.0)	100.0 (94.3 to 100.0)

End point values	Group 5: Short PVRV ID PEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	71			
Units: percentage of subjects				
number (confidence interval 95%)				
Year 1 + 7 days (n=198,106,68,68,71)	98.6 (92.4 to 100.0)			
Year 1 + 14 days (n=193,101,66,63,70)	98.6 (92.3 to 100.0)			

Statistical analyses

No statistical analyses for this end point

Secondary: Geometric Mean Titers of RVNA at 7 Days and 14 Days After First Simulated PEP Vaccination With HDCV or PVRV

End point title	Geometric Mean Titers of RVNA at 7 Days and 14 Days After First Simulated PEP Vaccination With HDCV or PVRV
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End point description:

RVNA titer was assessed using the RFFIT assay method and expressed in terms of IU/mL. Analysis was performed on the PEP FAS population. Here, 'n'= subjects with available data for each specified category.

End point type	Secondary
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End point timeframe:

7 days (i.e. Year 1 + 7 days) and 14 days (i.e. Year 1 + 14 days) after first simulated PEP vaccination

End point values	Group 1: Short HDCV IM Post-exposure Prophylaxis (PEP) Regimen	Group 2: Reference HDCV IM PEP Regimen	Group 3: Short HDCV ID PEP regimen	Group 4: Short PVRV IM PEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	200	107	68	68
Units: IU/mL				
geometric mean (confidence interval 95%)				
Year 1 + 7 days (n=198,106,68,68,71)	32.4 (27.4 to 38.3)	25.3 (20.9 to 30.6)	13.6 (10.7 to 17.3)	44.8 (35.1 to 57.1)
Year 1 + 14 days (n=193,101,66,63,70)	71.6 (61.2 to 83.6)	51.3 (43.5 to 60.6)	35.8 (27.8 to 46.2)	98.3 (75.0 to 129)

End point values	Group 5: Short PVRV ID PEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	71			
Units: IU/mL				
geometric mean (confidence interval 95%)				
Year 1 + 7 days (n=198,106,68,68,71)	18.5 (14.0 to 24.4)			
Year 1 + 14 days (n=193,101,66,63,70)	61.8 (45.5 to 84.1)			

Statistical analyses

No statistical analyses for this end point

Secondary: Geometric Mean Titer Ratio (GMTR) of RVNA After First Simulated PEP vaccination With HDCV or PVRV

End point title	Geometric Mean Titer Ratio (GMTR) of RVNA After First Simulated PEP vaccination With HDCV or PVRV
End point description:	
RVNA titer was assessed using the RFFIT assay method. GMTRs were calculated as the ratio of GMTs of 7 and 14 days after first simulated PEP vaccination and GMTs of 1 year after the last PrEP vaccination. Analysis was performed on the PEP FAS population. Here, 'n' = subjects with available data for each specified category.	
End point type	Secondary
End point timeframe:	
7 days (i.e. Year 1 + 7 days) and 14 days (i.e. Year 1 + 14 days) after first simulated PEP vaccination and 1 Year after last PrEP vaccination	

End point values	Group 1: Short HDCV IM Post-exposure Prophylaxis (PEP) Regimen	Group 2: Reference HDCV IM PEP Regimen	Group 3: Short HDCV ID PEP regimen	Group 4: Short PVRV IM PEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	200	107	68	68
Units: ratio				
geometric mean (confidence interval 95%)				
Year 1 + 7 days/Year 1 (n=193,106,68,68,70)	60.7 (50.8 to 72.6)	34.4 (27.2 to 43.5)	20.6 (14.8 to 28.5)	58.2 (42.7 to 79.2)
Year 1 + 14 days/Year 1 (n=188,101,66,63,69)	138 (116 to 164)	71.9 (54.1 to 95.6)	56.4 (39.4 to 80.8)	133 (95.3 to 185)

End point values	Group 5: Short PVRV ID PEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	71			
Units: ratio				
geometric mean (confidence interval 95%)				
Year 1 + 7 days/Year 1 (n=193,106,68,68,70)	19.9 (14.5 to 27.3)			
Year 1 + 14 days/Year 1 (n=188,101,66,63,69)	70.0 (48.0 to 102)			

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Subjects With Immediate Unsolicited Systemic Adverse Events (AEs) Following PrEP Vaccination with HDCV or PVRV

End point title	Number of Subjects With Immediate Unsolicited Systemic Adverse Events (AEs) Following PrEP Vaccination with HDCV or PVRV
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End point description:

An AE was any untoward medical occurrence in a subject who received study vaccines and did not necessarily had to have causal relationship with treatment. An unsolicited AE was an observed AE that did not fulfill the conditions pre-listed in the electronic case report form (eCRF) in terms of diagnosis and/or onset post-vaccination. Systemic AEs were all AEs that were not injection or administration site reactions. All subjects were observed for 30 minutes after any vaccination, and any unsolicited AEs occurred during that time were recorded as immediate unsolicited systemic AEs in the eCRF. Analysis was performed on the PrEP safety analysis set (SafAS) population that included subjects who had received at least 1 dose of the study vaccine during the PrEP period and were analysed according to the actual vaccine they received.

End point type	Secondary
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End point timeframe:

Within 30 minutes after any PrEP vaccination

End point values	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen	Group 3: Short HDCV Intradermal (ID) PrEP regimen	Group 4: Short PVRV IM PrEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	228	115	77	75
Units: subjects				
number (not applicable)	0	0	0	0

End point values	Group 5: Short PVRV ID PrEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	75			
Units: subjects				
number (not applicable)	0			

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Subjects With Immediate Unsolicited Systemic Adverse Events Following PEP Vaccination with HDCV or PVRV

End point title	Number of Subjects With Immediate Unsolicited Systemic Adverse Events Following PEP Vaccination with HDCV or PVRV
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End point description:

An AE was any untoward medical occurrence in a subject who received study vaccines and did not necessarily had to have causal relationship with treatment. An unsolicited AE was an observed AE that did not fulfill the conditions pre-listed in the eCRF in terms of diagnosis and/or onset post-vaccination. Systemic AEs were all AEs that were not injection or administration site reactions. All subjects were observed for 30 minutes after any vaccination, and any unsolicited AEs occurred during that time were recorded as immediate unsolicited systemic AEs in the eCRF. Analysis was performed on the simulated PEP SafAS population that include subjects who had received at least 1 dose of the study vaccine during the simulated PEP period and were analysed according to the actual vaccine they received.

End point type	Secondary
End point timeframe:	
Within 30 minutes after any simulated PEP vaccination	

End point values	Group 1: Short HDCV IM Post-exposure Prophylaxis (PEP) Regimen	Group 2: Reference HDCV IM PEP Regimen	Group 3: Short HDCV ID PEP regimen	Group 4: Short PVRV IM PEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	200	107	68	68
Units: subjects				
number (not applicable)	0	0	0	0

End point values	Group 5: Short PVRV ID PEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	71			
Units: subjects				
number (not applicable)	0			

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Subjects With Solicited Injection Site Reactions Following PrEP Vaccination with HDCV or PVRV

End point title	Number of Subjects With Solicited Injection Site Reactions Following PrEP Vaccination with HDCV or PVRV
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End point description:

A solicited reaction (SR) was an adverse reaction (AR) observed and reported under the conditions (symptom and onset) pre-listed (i.e., solicited) in the eCRF and considered as related to vaccination. Solicited injection site reactions included pain, erythema and swelling. Analysis was performed on the PrEP SafAS population. Here, 'n' = subjects with available data for each specified category and '99999' was used as space fillers and signifies that the subjects of Groups 1, 3, 4 and 5 did not receive any vaccination at Day 21 and therefore were not evaluable. Here, "vacc" in the categories below denotes "vaccination".

End point type	Secondary
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End point timeframe:

Within 7 days after any and each PrEP vaccination

End point values	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen	Group 3: Short HDCV Intradermal (ID) PrEP regimen	Group 4: Short PVRV IM PrEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	228	115	77	75
Units: subjects				
number (not applicable)				
Pain post-any vacc (n=228, 115, 77, 75, 75)	71	41	23	18

Pain Post-vacc: Day 0 (n=228,115, 77, 75, 75)	55	27	18	12
Pain Post-vacc: Day 7 (n=227,115, 77, 75, 75)	40	19	14	13
Pain Post-vacc: Day 21 (n = 0, 115, 0, 0, 0)	99999	16	99999	99999
Erythema post-any vacc (n=228,115,77,75, 75)	1	3	9	0
Erythema post-vacc: Day 0 (n=228,115,77,75,75)	1	1	3	0
Erythema post-vacc: Day 7 (n=227,115,77,75,75)	0	0	8	0
Erythema post-vacc: Day 21 (n=0,115, 0, 0,0)	99999	2	99999	99999
Swelling Post-any vacc (n=228,115,77,75,75)	2	4	5	0
Swelling Post-vacc: Day 0 (n=228,115,77,75,75)	2	3	3	0
Swelling Post-vacc: Day 7 (n=227,115,77,75,75)	0	0	4	0
Swelling Post-vacc: Day 21 (n=0, 115, 0, 0,0)	99999	1	99999	99999

End point values	Group 5: Short PVRV ID PrEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	75			
Units: subjects				
number (not applicable)				
Pain post-any vacc (n=228, 115, 77, 75, 75)	15			
Pain Post-vacc: Day 0 (n=228,115, 77, 75, 75)	13			
Pain Post-vacc: Day 7 (n=227,115, 77, 75, 75)	6			
Pain Post-vacc: Day 21 (n = 0, 115, 0, 0, 0)	99999			
Erythema post-any vacc (n=228,115,77,75, 75)	1			
Erythema post-vacc: Day 0 (n=228,115,77,75,75)	1			
Erythema post-vacc: Day 7 (n=227,115,77,75,75)	1			
Erythema post-vacc: Day 21 (n=0,115, 0, 0,0)	99999			
Swelling Post-any vacc (n=228,115,77,75,75)	1			
Swelling Post-vacc: Day 0 (n=228,115,77,75,75)	1			
Swelling Post-vacc: Day 7 (n=227,115,77,75,75)	1			
Swelling Post-vacc: Day 21 (n=0, 115, 0, 0,0)	99999			

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Subjects With Solicited Systemic Reactions Following PrEP Vaccination with HDCV or PVRV

End point title	Number of Subjects With Solicited Systemic Reactions Following PrEP Vaccination with HDCV or PVRV
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End point description:

A SR was an AR observed and reported under the conditions (symptom and onset) pre-listed (i.e., solicited) in the eCRF and considered as related to vaccination. Solicited systemic reactions included fever, headache, malaise and myalgia. Analysis was performed on the PrEP SafAS population. Here, 'n' = subjects with available data for each specified category and '99999' was used as space fillers and signifies that the subjects of Groups 1, 3, 4 and 5 did not receive any vaccination at Day 21 and therefore were not evaluable. Here, "vacc" in the categories below denotes "vaccination".

End point type	Secondary
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End point timeframe:

Within 7 days after any and each PrEP vaccination

End point values	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen	Group 3: Short HDCV Intradermal (ID) PrEP regimen	Group 4: Short PVRV IM PrEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	228	115	77	75
Units: subjects				
number (not applicable)				
Fever Post-any vacc (n=228,115,77,75,75)	10	13	5	3
Fever Post-vacc: Day 0 (n=228,115,77,75,75)	2	7	1	1
Fever Post-vacc: Day 7 (n=227,115,77,75,75)	8	7	4	2
Fever Post-vacc: Day 21 (n = 0, 115, 0, 0,0)	99999	1	99999	99999
Headache Post-any vacc (n=228,115,77,75,75)	41	28	21	17
Headache Post-vacc: Day 0 (n=228,115,77,75,75)	27	15	12	13
Headache Post-vacc: Day 7 (n=227,115,77,75,75)	24	12	11	11
Headache Post-vacc: Day 21 (n= 0, 115,0,0,0)	99999	8	99999	99999
Malaise Post-any vacc (n=228,115,77,75,75)	43	24	19	14
Malaise Post-vacc: Day 0 (n=228,115,77,75,75)	27	13	14	7
Malaise Post-vacc: Day 7 (n=227,115,77,75,75)	25	9	9	9
Malaise Post-vacc: Day 21 (n=0, 115, 0, 0, 0)	99999	7	99999	99999
Myalgia Post-any vacc (n=228,115,77,75,75)	35	18	15	12
Myalgia Post-vacc: Day 0 (n=228,115,77,75,75)	24	10	10	6

Myalgia Post-vacc: Day 7 (n=227,115,77,75,75)	20	5	7	9
Myalgia Post-vacc: Day 21 (n= 0, 115, 0,0,0)	99999	7	99999	99999

End point values	Group 5: Short PVRV ID PrEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	75			
Units: subjects				
number (not applicable)				
Fever Post-any vacc (n= 228,115,77,75,75)	4			
Fever Post-vacc: Day 0 (n= 228,115,77,75,75)	2			
Fever Post-vacc: Day 7 (n= 227,115,77,75,75)	2			
Fever Post-vacc: Day 21 (n = 0, 115, 0, 0,0)	99999			
Headache Post-any vacc (n=228,115,77,75,75)	11			
Headache Post-vacc: Day 0 (n=228,115,77,75,75)	6			
Headache Post-vacc: Day 7 (n=227,115,77,75,75)	6			
Headache Post-vacc: Day 21 (n= 0, 115,0,0,0)	99999			
Malaise Post-any vacc (n=228,115,77,75,75)	10			
Malaise Post-vacc: Day 0 (n=228,115,77,75,75)	5			
Malaise Post-vacc: Day 7 (n=227,115,77,75,75)	6			
Malaise Post-vacc: Day 21 (n=0, 115, 0, 0, 0)	99999			
Myalgia Post-any vacc (n=228,115,77,75,75)	5			
Myalgia Post-vacc: Day 0 (n=228,115,77,75,75)	2			
Myalgia Post-vacc: Day 7 (n=227,115,77,75,75)	3			
Myalgia Post-vacc: Day 21 (n= 0, 115, 0,0,0)	99999			

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Subjects With Unsolicited Non-Serious Adverse Events Following PrEP Vaccination with HDCV or PVRV

End point title	Number of Subjects With Unsolicited Non-Serious Adverse Events Following PrEP Vaccination with HDCV or PVRV
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End point description:

An AE was any untoward medical occurrence in a subject who received study vaccines and did not necessarily had to have causal relationship with treatment. An unsolicited AE was an observed AE that did not fulfill the conditions pre-listed in the eCRF in terms of diagnosis and/or onset post-vaccination. Analysis was performed on the PrEP SafAS population. Here, 'n' = subjects with available data for each specified category and '99999' was used as space fillers and signifies that the subjects of Groups 1, 3, 4 and 5 did not receive any vaccination at Day 21 and therefore were not evaluable. Here, "vacc" in the categories below denotes "vaccination".

End point type	Secondary
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End point timeframe:

Up to 28 days after any and each PrEP vaccination

End point values	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen	Group 3: Short HDCV Intradermal (ID) PrEP regimen	Group 4: Short PVRV IM PrEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	228	115	77	75
Units: subjects				
number (not applicable)				
Post-any vacc (n=228, 115, 77, 75, 75)	29	22	15	7
Post-vacc: Day 0 (n=228, 115, 77, 75, 75)	10	5	5	2
Post-vacc: Day 7 (n=227, 115, 77, 75, 75)	21	10	10	5
Post-vacc: Day 21 (n=0, 115, 0, 0, 0)	99999	9	99999	99999

End point values	Group 5: Short PVRV ID PrEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	75			
Units: subjects				
number (not applicable)				
Post-any vacc (n=228, 115, 77, 75, 75)	10			
Post-vacc: Day 0 (n=228, 115, 77, 75, 75)	2			
Post-vacc: Day 7 (n=227, 115, 77, 75, 75)	8			
Post-vacc: Day 21 (n=0, 115, 0, 0, 0)	99999			

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Subjects With Serious Adverse Events (SAEs) Following PrEP Vaccination with HDCV or PVRV

End point title	Number of Subjects With Serious Adverse Events (SAEs)
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End point description:

An SAE was any untoward medical occurrence that at any dose resulted in death; life-threatening; initial or prolonged inpatient hospitalisation; persistent or significant disability/incapacity; congenital anomaly/birth defect or a medically important event. Analysis was performed on the PrEP SafAS population.

End point type	Secondary
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End point timeframe:

From Day 0 (pre-vaccination) up to 28 days after last PrEP vaccination

End point values	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen	Group 3: Short HDCV Intradermal (ID) PrEP regimen	Group 4: Short PVRV IM PrEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	228	115	77	75
Units: subjects				
number (not applicable)	0	0	0	0

End point values	Group 5: Short PVRV ID PrEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	75			
Units: subjects				
number (not applicable)	0			

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Subjects With Solicited Injection Site Reactions Following PEP Vaccination with HDCV or PVRV

End point title	Number of Subjects With Solicited Injection Site Reactions Following PEP Vaccination with HDCV or PVRV
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End point description:

A SR was an AR observed and reported under the conditions (symptom and onset) pre-listed (i.e., solicited) in the eCRF and considered as related to vaccination. Solicited injection site reactions included pain, erythema and swelling. Analysis was performed on the PEP SafAS population. Here, 'n' = subjects with available data for each specified category. Here, "vacc" in the categories below denotes "vaccination" and "D" denotes "Days".

End point type	Secondary
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End point timeframe:

Within 7 days after any and each simulated PEP vaccination

End point values	Group 1: Short HDCV IM Post- exposure Prophylaxis (PEP) Regimen	Group 2: Reference HDCV IM PEP Regimen	Group 3: Short HDCV ID PEP regimen	Group 4: Short PVRV IM PEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	200	107	68	68
Units: subjects				
number (not applicable)				
Pain Post-any vacc (n=200, 107, 68, 68, 71)	38	21	11	14
Pain Post-vacc: Year 1 (n=200, 107, 68, 68, 71)	34	18	8	12
Pain Post-vacc: Year 1+3 D (n=200,106,68,68,70)	17	10	4	10
Erythema Post-any vacc (n=200, 107, 68, 68, 71)	1	0	3	0
Erythema Post-vacc: Year 1 (n=200, 107,68,68,71)	1	0	3	0
Erythema Post-vacc: Year 1+3D (n=200,106,68,68,70)	0	0	0	0
Swelling Post-any vacc (n=200, 107, 68, 68, 71)	2	2	3	0
Swelling Post-vacc: Year 1 (n=200, 107,68,68,71)	1	0	3	0
Swelling Post-vacc: Year 1+3D (n=200,106,68,68,70)	1	2	0	0

End point values	Group 5: Short PVRV ID PEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	71			
Units: subjects				
number (not applicable)				
Pain Post-any vacc (n=200, 107, 68, 68, 71)	12			
Pain Post-vacc: Year 1 (n=200, 107, 68, 68, 71)	12			
Pain Post-vacc: Year 1+3 D (n=200,106,68,68,70)	5			
Erythema Post-any vacc (n=200, 107, 68, 68, 71)	3			
Erythema Post-vacc: Year 1 (n=200, 107,68,68,71)	3			
Erythema Post-vacc: Year 1+3D (n=200,106,68,68,70)	0			
Swelling Post-any vacc (n=200, 107, 68, 68, 71)	2			
Swelling Post-vacc: Year 1 (n=200, 107,68,68,71)	2			
Swelling Post-vacc: Year 1+3D (n=200,106,68,68,70)	0			

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Subjects With Solicited Systemic Reactions Following PEP Vaccination with HDCV or PVRV

End point title	Number of Subjects With Solicited Systemic Reactions Following PEP Vaccination with HDCV or PVRV
End point description:	
A SR was an AR observed and reported under the conditions (symptom and onset) pre-listed (i.e., solicited) in the eCRF and considered as related to vaccination. Solicited systemic reactions included fever, headache, malaise and myalgia. Analysis was performed on the PEP SafAS population. Here, 'n'= subjects with available data for each specified category. Here, "vacc" in the categories below denotes "vaccination" and "D" denotes "Days".	
End point type	Secondary
End point timeframe:	
Within 7 days after any and each simulated PEP Vaccination	

End point values	Group 1: Short HDCV IM Post- exposure Prophylaxis (PEP) Regimen	Group 2: Reference HDCV IM PEP Regimen	Group 3: Short HDCV ID PEP regimen	Group 4: Short PVRV IM PEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	200	107	68	68
Units: subjects				
number (not applicable)				
Fever Post-any vacc (n=200,107,68,68,71)	2	1	2	0
Fever Post-vacc: Year 1 (n=200, 107,68,68,71)	0	0	1	0
Fever Post-vacc: Year 1+3D (n=200,106,68,68,70)	2	1	1	0
Headache Post-any vacc (n=200,107,68,68,71)	17	8	13	5
Headache Post-vacc: Year 1(n=200,107,68,68,71)	15	7	8	4
Headache Post-vacc: Year 1+3D(n=200,106,68,68,70)	4	4	7	3
Malaise Post-any vacc (n=200, 107,68,68,71)	13	7	12	3
Malaise Post-vacc: Year 1(n=200, 107,68,68,71)	10	6	9	2
Malaise Post-vacc: Year 1+3D(n=200, 106,68,68,70)	5	3	6	3
Myalgia Post-any vacc (n=200, 107,68,68,71)	22	8	12	7
Myalgia Post-vacc: Year 1 (n=200, 107, 68,68,71)	19	8	8	5

Myalgia Post-vacc: Year 1+3D(n=200,106,68,68,70)	6	3	6	3
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End point values	Group 5: Short PVRV ID PEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	71			
Units: subjects				
number (not applicable)				
Fever Post-any vacc (n=200,107,68,68,71)	0			
Fever Post-vacc: Year 1 (n=200, 107,68,68,71)	0			
Fever Post-vacc: Year 1+3D (n=200,106,68,68,70)	0			
Headache Post-any vacc (n=200,107,68,68,71)	5			
Headache Post-vacc: Year 1(n=200,107,68,68,71)	4			
Headache Post-vacc: Year 1+3D(n=200,106,68,68,70)	1			
Malaise Post-any vacc (n=200, 107,68,68,71)	3			
Malaise Post-vacc: Year 1(n=200, 107,68,68,71)	1			
Malaise Post-vacc: Year 1+3D(n=200, 106,68,68,70)	2			
Myalgia Post-any vacc (n=200, 107,68,68,71)	9			
Myalgia Post-vacc: Year 1 (n=200, 107, 68,68,71)	7			
Myalgia Post-vacc: Year 1+3D(n=200,106,68,68,70)	4			

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Subjects With Unsolicited Non-Serious Adverse Events Following Simulated PEP Vaccination with HDCV or PVRV

End point title	Number of Subjects With Unsolicited Non-Serious Adverse Events Following Simulated PEP Vaccination with HDCV or PVRV
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End point description:

An AE was any untoward medical occurrence in a subject who received study vaccines and did not necessarily had to have causal relationship with treatment. An unsolicited AE was an observed AE that did not fulfill the conditions pre-listed in the eCRF in terms of diagnosis and/or onset post-vaccination. Analysis was performed on the PEP SafAS population. Here, 'n'= subjects with available data for each specified category. Here, "vacc" in the categories below denotes "vaccination".

End point type	Secondary
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End point timeframe:

Up to 28 days after any and each simulated PEP vaccination

End point values	Group 1: Short HDCV IM Post-exposure Prophylaxis (PEP) Regimen	Group 2: Reference HDCV IM PEP Regimen	Group 3: Short HDCV ID PEP regimen	Group 4: Short PVRV IM PEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	200	107	68	68
Units: subjects				
number (not applicable)				
Post-any vacc (n=200, 107, 68, 68, 71)	3	1	3	3
Post-vacc: Year 1 (n=200, 107, 68, 68, 71)	1	0	0	1
Post-vacc: Year 1+3Days (n=200, 106, 68, 68, 70)	2	1	3	2

End point values	Group 5: Short PVRV ID PEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	71			
Units: subjects				
number (not applicable)				
Post-any vacc (n=200, 107, 68, 68, 71)	2			
Post-vacc: Year 1 (n=200, 107, 68, 68, 71)	1			
Post-vacc: Year 1+3Days (n=200, 106, 68, 68, 70)	1			

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Subjects With Serious Adverse Events Following PEP Vaccination with HDCV or PVRV

End point title	Number of Subjects With Serious Adverse Events Following PEP Vaccination with HDCV or PVRV
End point description:	
An SAE was any untoward medical occurrence that at any dose resulted in death; life-threatening; initial or prolonged inpatient hospitalisation; persistent or significant disability/incapacity; congenital anomaly/birth defect or a medically important event. Analysis was performed on the PEP SafAS population.	
End point type	Secondary
End point timeframe:	
From 1 year after last PrEP vaccination up to 31 days after last simulated PEP vaccination	

End point values	Group 1: Short HDCV IM Post-exposure Prophylaxis (PEP) Regimen	Group 2: Reference HDCV IM PEP Regimen	Group 3: Short HDCV ID PEP regimen	Group 4: Short PVRV IM PEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	200	107	68	68
Units: subjects				
number (not applicable)	0	0	0	0

End point values	Group 5: Short PVRV ID PEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	71			
Units: subjects				
number (not applicable)	0			

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Subjects With Related SAEs, Unrelated Deaths, and Life-threatening SAEs at Time Period Between PrEP and PEP Phase

End point title	Number of Subjects With Related SAEs, Unrelated Deaths, and Life-threatening SAEs at Time Period Between PrEP and PEP Phase
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End point description:

An SAE was any untoward medical occurrence that at any dose resulted in death; life-threatening; initial or prolonged inpatient hospitalisation; persistent or significant disability/incapacity; congenital anomaly/birth defect or a medically important event. All related SAEs, unrelated deaths, and life-threatening SAEs were collected between the end of the PrEP phase and the beginning of the PEP phase. Analysis was performed on PrEP SafAS population.

End point type	Secondary
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End point timeframe:

From 28 days after last PrEP vaccination up to 1 year after last PrEP vaccination

End point values	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen	Group 3: Short HDCV Intradermal (ID) PrEP regimen	Group 4: Short PVRV IM PrEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	228	115	77	75
Units: subjects				

number (not applicable)				
Related SAEs	0	0	0	0
Unrelated Deaths	1	0	0	0
Life-threatening SAEs	0	0	0	0

End point values	Group 5: Short PVRV ID PrEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	75			
Units: subjects				
number (not applicable)				
Related SAEs	0			
Unrelated Deaths	0			
Life-threatening SAEs	0			

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Female Subjects Who Were Pregnant During PrEP Phase

End point title	Number of Female Subjects Who Were Pregnant During PrEP Phase
End point description: Number of female subjects who got pregnant during PrEP phase was collected and reported. Analysis was performed on PrEP SafAS population. Number of subjects analysed = female subjects evaluable for this endpoint.	
End point type	Secondary
End point timeframe: From Day 0 (pre-vaccination) up to 28 days after last PrEP vaccination	

End point values	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen	Group 3: Short HDCV Intradermal (ID) PrEP regimen	Group 4: Short PVRV IM PrEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	113	67	41	41
Units: subjects				
number (not applicable)	0	0	0	0

End point values	Group 5: Short PVRV ID PrEP regimen			
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Subject group type	Reporting group			
Number of subjects analysed	39			
Units: subjects				
number (not applicable)	0			

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Female Subjects Who Were Pregnant Between PrEP and PEP Phase

End point title	Number of Female Subjects Who Were Pregnant Between PrEP and PEP Phase
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End point description:

Number of female subjects who got pregnant between the end of the PrEP phase and the beginning of the PEP phase was collected and reported in this endpoint. Analysis was performed on PrEP SafAS population. Number of subjects analysed = female subjects evaluable for this endpoint.

End point type	Secondary
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End point timeframe:

From 28 days after last PrEP vaccination up to 1 year after last PrEP vaccination

End point values	Group 1: Short HDCV IM PrEP Regimen	Group 2: Reference HDCV IM PrEP Regimen	Group 3: Short HDCV Intradermal (ID) PrEP regimen	Group 4: Short PVRV IM PrEP regimen
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	113	67	41	41
Units: subjects				
number (not applicable)	6	3	4	0

End point values	Group 5: Short PVRV ID PrEP regimen			
Subject group type	Reporting group			
Number of subjects analysed	39			
Units: subjects				
number (not applicable)	0			

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

AE data: from Day 0 (pre-vaccination) up to 28 days post any vaccination. SR data: collected within 7 days post any vaccination. SAE data: collected throughout study (i.e. up to 28 and 31 days after last PrEP and simulated PEP vaccination, respectively).

Adverse event reporting additional description:

A SR was an AE that was pre-listed (i.e., solicited) in the eCRF and considered to be related to vaccination (adverse drug reaction). An unsolicited AE was an observed AE that did not fulfill the conditions pre-listed (i.e., solicited) in the eCRF in terms of symptom and/or onset post-vaccination. Analysis was performed on SafAS population.

Assessment type	Systematic
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Dictionary used

Dictionary name	MedDRA
Dictionary version	19.0

Reporting groups

Reporting group title	Group 1: Short HDCV IM PrEP + PEP Regimen
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Reporting group description:

In PrEP regimen, subjects received a single IM dose of HDCV on Day 0 and Day 7 and were followed up to 1 year post last PrEP vaccination. In simulated PEP regimen, pre-immunised subjects received a single dose of HDCV at Year 1 and Year 1 + 3 days, post last PrEP vaccination and were followed up for 31 days post last PEP vaccination.

Reporting group title	Group 2: Reference HDCV IM PrEP + PEP Regimen
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Reporting group description:

In PrEP regimen, subjects received a single IM dose of HDCV on Day 0, Day 7, and Day 21 and were followed up to 1 year post last PrEP vaccination. In simulated PEP regimen, pre-immunised subjects received a single dose of HDCV on Year 1 and Year 1 + 3 days, post last PrEP vaccination and were followed up for 31 days post last PEP vaccination.

Reporting group title	Group 3: Short HDCV ID PrEP + PEP regimen
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Reporting group description:

In PrEP regimen, subjects received two ID doses of HDCV on Day 0 and Day 7 and were followed up to 1 year post last PrEP vaccination. In simulated PEP regimen, pre-immunised subjects received a single dose of HDCV on Year 1 and Year 1 + 3 days, post last PrEP vaccination and were followed up for 31 days post last PEP vaccination.

Reporting group title	Group 4: Short PVRV IM PrEP + PEP regimen
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Reporting group description:

In PrEP regimen, subjects received a single IM dose of purified Vero cell rabies vaccine (PVRV) on Day 0 and Day 7 and were followed up to 1 year post last PrEP vaccination. In simulated PEP regimen, pre-immunised subjects received a single dose of PVRV on Year 1 and on Year 1 + 3 days, post last PrEP vaccination and were followed up for 31 days post last PEP vaccination.

Reporting group title	Group 5: Short PVRV ID PrEP + PEP regimen
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Reporting group description:

In PrEP regimen, subjects received two ID doses of PVRV on Day 0 and Day 7 and were followed up to 1 year post last PrEP vaccination. In simulated PEP regimen, Pre-immunised subjects received a single dose of PVRV on Year 1 and Year 1 + 3 days, post last PrEP vaccination and were followed up for 31 days post last PEP vaccination.

Serious adverse events	Group 1: Short HDCV IM PrEP + PEP Regimen	Group 2: Reference HDCV IM PrEP + PEP Regimen	Group 3: Short HDCV ID PrEP + PEP regimen
Total subjects affected by serious adverse events subjects affected / exposed	1 / 228 (0.44%)	2 / 115 (1.74%)	0 / 77 (0.00%)

number of deaths (all causes) number of deaths resulting from adverse events	1	0	0
Pregnancy, puerperium and perinatal conditions			
Abortion Spontaneous			
subjects affected / exposed	0 / 228 (0.00%)	1 / 115 (0.87%)	0 / 77 (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
Foetal Death			
subjects affected / exposed	0 / 228 (0.00%)	1 / 115 (0.87%)	0 / 77 (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
Infections and infestations			
Pneumonia			
subjects affected / exposed	1 / 228 (0.44%)	0 / 115 (0.00%)	0 / 77 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 1	0 / 0	0 / 0

Serious adverse events	Group 4: Short PVRV IM PrEP + PEP regimen	Group 5: Short PVRV ID PrEP + PEP regimen	
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 75 (0.00%)	0 / 75 (0.00%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events			
Pregnancy, puerperium and perinatal conditions			
Abortion Spontaneous			
subjects affected / exposed	0 / 75 (0.00%)	0 / 75 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Foetal Death			
subjects affected / exposed	0 / 75 (0.00%)	0 / 75 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Infections and infestations			
Pneumonia			

subjects affected / exposed	0 / 75 (0.00%)	0 / 75 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	

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

Non-serious adverse events	Group 1: Short HDCV IM PrEP + PEP Regimen	Group 2: Reference HDCV IM PrEP + PEP Regimen	Group 3: Short HDCV ID PrEP + PEP regimen
Total subjects affected by non-serious adverse events			
subjects affected / exposed	115 / 228 (50.44%)	64 / 115 (55.65%)	47 / 77 (61.04%)
Nervous system disorders			
Headache			
subjects affected / exposed	51 / 228 (22.37%)	34 / 115 (29.57%)	27 / 77 (35.06%)
occurrences (all)	126	76	76
General disorders and administration site conditions			
Injection Site Erythema			
subjects affected / exposed	1 / 228 (0.44%)	3 / 115 (2.61%)	11 / 77 (14.29%)
occurrences (all)	4	4	39
Injection Site Pain			
subjects affected / exposed	86 / 228 (37.72%)	47 / 115 (40.87%)	27 / 77 (35.06%)
occurrences (all)	237	146	124
Injection Site Swelling			
subjects affected / exposed	3 / 228 (1.32%)	5 / 115 (4.35%)	7 / 77 (9.09%)
occurrences (all)	7	9	26
Malaise			
subjects affected / exposed	50 / 228 (21.93%)	28 / 115 (24.35%)	27 / 77 (35.06%)
occurrences (all)	117	66	81
Pyrexia	Additional description: Pyrexia events that occurred after 7 days post-vaccination were considered as unsolicited AE.		
subjects affected / exposed	14 / 228 (6.14%)	13 / 115 (11.30%)	7 / 77 (9.09%)
occurrences (all)	22	27	20
Musculoskeletal and connective tissue disorders			
Myalgia			
subjects affected / exposed	47 / 228 (20.61%)	22 / 115 (19.13%)	21 / 77 (27.27%)
occurrences (all)	109	51	60
Infections and infestations			

Upper Respiratory Tract Infection subjects affected / exposed occurrences (all)	16 / 228 (7.02%) 16	10 / 115 (8.70%) 11	10 / 77 (12.99%) 10
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Non-serious adverse events	Group 4: Short PVRV IM PrEP + PEP regimen	Group 5: Short PVRV ID PrEP + PEP regimen	
Total subjects affected by non-serious adverse events subjects affected / exposed	36 / 75 (48.00%)	32 / 75 (42.67%)	
Nervous system disorders Headache subjects affected / exposed occurrences (all)	19 / 75 (25.33%) 45	14 / 75 (18.67%) 25	
General disorders and administration site conditions Injection Site Erythema subjects affected / exposed occurrences (all)	0 / 75 (0.00%) 0	4 / 75 (5.33%) 9	
Injection Site Pain subjects affected / exposed occurrences (all)	26 / 75 (34.67%) 65	22 / 75 (29.33%) 70	
Injection Site Swelling subjects affected / exposed occurrences (all)	0 / 75 (0.00%) 0	3 / 75 (4.00%) 7	
Malaise subjects affected / exposed occurrences (all)	15 / 75 (20.00%) 38	11 / 75 (14.67%) 21	
Pyrexia subjects affected / exposed occurrences (all)	Additional description: Pyrexia events that occurred after 7 days post- vaccination were considered as unsolicited AE.		
	3 / 75 (4.00%) 5	4 / 75 (5.33%) 10	
Musculoskeletal and connective tissue disorders Myalgia subjects affected / exposed occurrences (all)	17 / 75 (22.67%) 32	12 / 75 (16.00%) 30	
Infections and infestations Upper Respiratory Tract Infection subjects affected / exposed occurrences (all)	5 / 75 (6.67%) 5	6 / 75 (8.00%) 6	

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