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<b>Study No.:</b> 580299/007 (HPV-007)
<b>Title:</b> A phase IIb, blinded, multi-center, long-term follow-up study of the efficacy of candidate HPV-16/18 VLP vaccine in the prevention of HPV-16 and/or HPV-18 cervical infection in adolescent and young adult women in North America and Brazil vaccinated in primary study HPV-001 (580299/001). HPV-16/18 VLP vaccine: GlaxoSmithKline Biologicals' virus-like particle (VLP) vaccine against human papillomaviruses (HPV) 16 and 18.
<b>Rationale:</b> The aim of this study was to evaluate the long-term efficacy in the prevention of cervical infection with HPV-16 and/or HPV-18, persistence of vaccine-induced immune responses and safety of the HPV-16/18 VLP vaccine administered in primary study 580299/001. Note: for the results on the primary study, please refer to the 580299/001 CTRS.
<b>Phase:</b> IIb
<b>Study Period:</b> 10 November 2003 to 18 July 2007.
<b>Study Design:</b> Multi-centre, blind, placebo-controlled, randomized long-term efficacy follow-up of study 580299/001 (HPV-001) with 2 study groups (1:1).
<b>Centers:</b> 28 study centers: 18 in the United States, 5 in Canada and 5 in Brazil.
<b>Indication:</b> Active immunization of girls and women from 10 years of age onwards for the prevention of persistent HPV infections and related clinical outcomes (cytological abnormalities and pre-cancerous lesions) caused by oncogenic HPV types 16 and 18 in the primary study.
<b>Treatment:</b> The study groups were as follows: <ul style="list-style-type: none"> <li>• Vaccine Group received HPV-16/18 VLP vaccine at 0, 1 and 6 months during the primary study 580299/001.</li> <li>• Placebo Group received a placebo at 0, 1 and 6 months during the primary study 580299/001.</li> </ul> No vaccines were administered during this long-term follow-up study.
<b>Objectives:</b> To evaluate the long-term vaccine efficacy in the prevention of incident cervical infection with HPV-16 and/or HPV-18 in adolescent and young adult women who received 3 doses of the study vaccine or placebo in study 580299/001 and who were previously uninfected with HPV-16 or HPV-18.
<b>Primary Outcome/Efficacy Variable:</b> <b>Efficacy:</b> <ul style="list-style-type: none"> <li>• Incident cervical infection with HPV-16 and/or HPV-18</li> </ul> <i>Incident cervical HPV infection was defined as the first detection of an HPV type in a subject previously negative for that HPV type</i>
<b>Secondary Outcome/Efficacy Variable(s):</b> <b>Efficacy:</b> <ul style="list-style-type: none"> <li>• Persistent cervical infection (6-month definition) with HPV-16 and/or HPV-18. <i>Persistent cervical HPV infection (6-month definition) was defined as detection of the same HPV type in cervical specimens at two consecutive evaluations over a minimum period of five months, with no negative sample in between (must include at least one evaluation in this study).</i></li> <li>• Persistent cervical infection (6-month definition) with any/each oncogenic HPV type (HPV-16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68).</li> <li>• Incident cervical infection with any/each oncogenic HPV type (HPV-16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68).</li> <li>• Histopathologically-confirmed Cervical intraepithelial neoplasia (CIN) 1+ or CIN 2+ associated with HPV-16 or HPV-18 detected within the lesional component of the cervical tissue specimen. <i>CIN 1+ was defined as CIN 1, CIN 2, CIN 3, adenocarcinoma in situ (AIS), and invasive cervical cancer.</i> <i>CIN 2+ was defined as CIN 2, CIN 3, AIS, and invasive cervical cancer.</i></li> <li>• Histopathologically-confirmed CIN 1+ or CIN 2+ associated with any/each oncogenic HPV type (HPV-16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68) detected within the lesional component of the cervical tissue specimen.</li> <li>• Abnormal cytology [Atypical squamous cells of undetermined significance (ASC-US), Low-grade squamous intraepithelial lesion (LSIL), High-grade squamous intraepithelial lesion (HSIL), Atypical glandular cells (AGC), Atypical squamous cells, cannot exclude HSIL (ASC-H)] associated with an HPV-16 and/or HPV-18 cervical infection.</li> <li>• Abnormal cytology (ASC-US, LSIL, HSIL, AGC, ASC-H) associated with any/each oncogenic HPV type (HPV-16, 18,</li> </ul>

31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68) cervical infection.

**Statistical Methods:**

The analyses were performed on the Total cohort, According-To-Protocol (ATP) cohort for efficacy, ATP cohort for immunogenicity and ATP cohort for safety.

- The Total cohort included enrolled subjects who came at first visit.
- The ATP cohort for efficacy included all subjects for whom differential treatment effect on efficacy was likely (i.e. those meeting all eligibility criteria in studies 580299/001 and 580299/007), complying with the procedures defined in the protocol, and for whom data concerning efficacy measures were available.
- The ATP cohort for immunogenicity included all evaluable subjects, i.e. those meeting all eligibility criteria in studies 580299/001 and 580299/007, complying with the procedures defined in the protocol and fulfilling requirements for analysis (e.g. without concomitant infection related or unrelated to HPV vaccine which may have influenced the immune response), for whom data concerning immunogenicity were available.
- The ATP cohort for safety included all evaluable subjects who did not use any investigational or non-registered product (drug or vaccine) or any HPV vaccine other than that used in study HPV-001 during the study period.

A combined (referred to as HPV-001/007 combined) analysis of efficacy data of HPV-001 and HPV-007 was performed in addition to the analysis of the efficacy data of HPV-007. The HPV-001/007 combined analysis was descriptive.

For the combined analysis, the Total cohort refers to the Total cohort (subjects with data available) of the HPV-001 study and the ATP cohort refers to the ATP cohort of the HPV-001 study, including the drop-out subjects for whom efficacy data were available.

**Analysis of Efficacy**

The analysis was performed on the ATP cohort for efficacy for virological outcome variables and on the Total cohort for the cytological and histopathological outcome variables.

*Inferential analysis*

Vaccine Efficacy (VE) and 95% confidence intervals (CIs) were calculated using the conditional exact method, which took into account the follow-up time of the subjects within each group. The follow-up time [expressed in person-years at risk (number of days/365.25)] for each subject started at the day of first visit in this study and ended at the time of the event or at the latest visit for which data were available or for subjects who withdrew from the study and did not have an event. The incidence rates of cervical infection were compared between the 2 groups using the Fisher exact test. The null hypothesis (the expected incidence rate during the considered period being similar in both groups) was rejected if the Fisher exact p-value was <0.001. VE was defined as 1 minus the rate ratio (ratio of the event rates in the vaccinated versus placebo group).

*Descriptive analysis*

Incidence rates and VE against incident and persistent cervical infection with HPV-16 and/or HPV-18 were calculated with 95% CIs using Conditional exact method. Similar tabulation was done for any/each oncogenic HPV type (HPV-16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68).

Incidence rates and VE against CIN1+ or CIN2+ associated with HPV-16 and/or HPV-18 detected within the lesional component of the cervical tissue specimen were calculated with 95% CIs. The same calculation was done for any/each oncogenic HPV type.

Incidence rates and VE against cytological abnormalities (ASC-US, LSIL, HSIL, AGC, ASC-H) associated with HPV-16 and/or HPV-18 were calculated with 95% CIs. The same calculation was done for any/each oncogenic HPV type.

**Analysis of Immunogenicity**

The analysis was performed on the ATP cohort for immunogenicity.

For each treatment group, at each time interval for which result was available, seropositivity rates for both HPV-16 and HPV-18 ELISA titers with exact 95% CI and geometric mean titers (GMTs) with 95% CI were calculated. Seropositivity was defined as the anti-HPV-16 titer ≥ 8 EL.U/mL and anti-HPV-18 titer ≥ 7 EL.U/mL by ELISA.

**Analysis of Safety**

The analysis was performed on the ATP cohort for safety and the Total cohort.

For each group, the occurrence of unsolicited adverse events (AEs) and Serious adverse events (SAEs) from the end of study HPV-001 throughout the entire HPV-007 study period was tabulated, according to the Medical Dictionary for Regulatory activities (MedDRA) preferred terms. .

**Study Population:** Healthy young adult women who participated in study 580299/001 and received all 3 doses of vaccine or placebo. Prior to the performance of any study-specific procedures, written informed consent was obtained from each subject. For subjects below the legal age of consent, written informed consent was also obtained from a Legally Acceptable Representative of the subject.

Number of subjects	HPV Group	Placebo Group
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HPV-001 participants, N	560	553
Enrolled, N (Total Cohort)	393	383
Completed, n (%)	359 (91.3)	341 (89.0)
Total Number Subjects Withdrawn, n (%)	34 (8.7)	42 (11.0)
Withdrawn due to Adverse Events, n (%)	0 (0.0)	0 (0.0)
Withdrawn due to Lack of Efficacy, n (%)	Not Applicable	Not Applicable
Withdrawn for other reasons, n (%)	34 (8.7)	42 (11.0)
<b>Demographics</b>	<b>HPV Group</b>	<b>Placebo Group</b>
N (Total Cohort)	393	383
Females: Males	393: 0	383: 0
Mean Age, years (SD)	23.2 (2.9)	23.2 (2.8)
White/Caucasian, n (%)	251 (63.9)	254 (66.3)

**Primary Efficacy Results:**

Incidence rates and vaccine efficacy against incident infection with HPV-16 and/or HPV-18 using Conditional exact method (Cervical samples only, ATP cohort for efficacy)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE			P-value*
						n/T (Per 100)	95% CI		%	95% CI		
							LL	UL		LL	UL	
HPV-007	HPV-16	Vaccine	304	1	833.70	0.1	0.0	0.7	97.5	85.3	99.9	<0.001
		Placebo	270	33	676.11	4.9	3.4	6.9	-	-	-	-
	HPV-18	Vaccine	303	1	832.31	0.1	0.0	0.7	96.3	77.5	99.9	<0.001
		Placebo	281	24	731.50	3.3	2.1	4.9	-	-	-	-
	HPV-16/18	Vaccine	303	2	830.25	0.2	0.0	0.9	96.7	87.4	99.6	<0.001
		Placebo	267	47	644.66	7.3	5.4	9.7	-	-	-	-
HPV-001/007 combined	HPV-16	Vaccine	401	1	1218.11	0.1	0.0	0.5	98.4	90.5	100	-
		Placebo	372	52	1034.46	5.0	3.8	6.6	-	-	-	-
	HPV-18	Vaccine	401	3	1216.22	0.2	0.1	0.7	91.3	72.1	98.3	-
		Placebo	372	30	1056.82	2.8	1.9	4.1	-	-	-	-
	HPV-16/18	Vaccine	401	4	1214.16	0.3	0.1	0.8	95.3	87.4	98.7	-
		Placebo	372	70	1003.01	7.0	5.4	8.8	-	-	-	-

N = number of subjects included in each group

n = number of subjects reporting at least one event in each group

T(year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group

n/T = person-year rate in each group

LL, UL = 95% Lower and Upper confidence limits

VE(%) = Vaccine Efficacy (Conditional exact method)

\* The observed VE HPV-16 and/or HPV-18 infection was statistically significant

**Secondary Outcome Variable (s):**

Incidence rates and vaccine efficacy against incident infection with oncogenic HPV types using Conditional exact method

(Cervical samples only, ATP cohort for efficacy)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-HR	Vaccine	279	104	573.42	18.1	14.8	22.0	9.2	-20.6	31.6
		Placebo	259	101	505.69	20.0	16.3	24.3	-	-	-
	HPV-HRW	Vaccine	279	104	573.42	18.1	14.8	22.0	-15.1	-55.0	14.3
		Placebo	259	86	545.83	15.8	12.6	19.5	-	-	-
HPV-001/007 combined	HPV-HR	Vaccine	375	119	885.12	13.4	11.1	16.1	25.6	4.3	42.2
		Placebo	343	140	775.14	18.1	15.2	21.3	-	-	-
	HPV-HRW	Vaccine	375	119	885.12	13.4	11.1	16.1	11.8	-14.3	32.0
		Placebo	343	124	813.07	15.3	12.7	18.2	-	-	-

HPV-HR = High-risk (oncogenic) HPV types: HPV-16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68

HPV-HRW = High-risk (oncogenic) HPV types without HPV-16 or HPV-18: HPV-31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and

68

N = number of subjects included in each group

n = number of subjects reporting at least one event in each group

T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group

n/T = person-year rate in each group

95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit

VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**

Incidence rates and vaccine efficacy against incident infection with each HR HPV type using Conditional exact method

(Cervical samples only, ATP cohort for efficacy)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-31	Vaccine	344	12	927.89	1.3	0.7	2.3	42.5	-24.8	74.5
		Placebo	322	19	845.15	2.2	1.4	3.5	-	-	-
	HPV-33	Vaccine	340	6	921.88	0.7	0.2	1.4	36.2	-100.6	81.3
		Placebo	330	9	881.87	1.0	0.5	1.9	-	-	-
	HPV-35	Vaccine	343	7	930.77	0.8	0.3	1.5	48.8	-38.0	82.7
		Placebo	335	13	884.31	1.5	0.8	2.5	-	-	-
	HPV-39	Vaccine	339	27	890.03	3.0	2.0	4.4	-6.1	-92.2	41.0
		Placebo	324	24	839.68	2.9	1.8	4.3	-	-	-
	HPV-45	Vaccine	347	5	946.39	0.5	0.2	1.2	70.8	16.6	91.6
		Placebo	334	16	884.05	1.8	1.0	2.9	-	-	-
	HPV-51	Vaccine	328	49	812.88	6.0	4.5	8.0	-27.0	-99.3	18.6
		Placebo	317	38	800.38	4.7	3.4	6.5	-	-	-
	HPV-52	Vaccine	338	41	853.51	4.8	3.4	6.5	-42.3	-140.5	14.6
		Placebo	312	27	799.70	3.4	2.2	4.9	-	-	-
	HPV-56	Vaccine	335	24	882.87	2.7	1.7	4.0	11.1	-61.1	51.1
		Placebo	325	26	850.06	3.1	2.0	4.5	-	-	-
	HPV-58	Vaccine	340	10	917.74	1.1	0.5	2.0	26.5	-81.5	71.1
		Placebo	330	13	877.23	1.5	0.8	2.5	-	-	-
	HPV-59	Vaccine	343	13	914.19	1.4	0.8	2.4	-26.9	-223.3	48.6
		Placebo	335	10	892.37	1.1	0.5	2.1	-	-	-
HPV-66	Vaccine	332	35	859.15	4.1	2.8	5.7	-69.2	-209.3	5.0	
	Placebo	319	20	830.56	2.4	1.5	3.7	-	-	-	
HPV-68	Vaccine	337	21	898.07	2.3	1.4	3.6	5.9	-81.1	51.1	
	Placebo	321	21	845.00	2.5	1.5	3.8	-	-	-	
HPV-001/007 combined	HPV-31	Vaccine	455	13	1361.16	1.0	0.5	1.6	59.8	20.5	80.7
		Placebo	430	30	1263.20	2.4	1.6	3.4	-	-	-
	HPV-33	Vaccine	458	12	1357.24	0.9	0.5	1.5	24.0	-73.9	67.5
		Placebo	436	15	1289.17	1.2	0.7	1.9	-	-	-
	HPV-35	Vaccine	458	8	1363.35	0.6	0.3	1.2	49.7	-26.5	81.5
		Placebo	437	15	1286.77	1.2	0.7	1.9	-	-	-
	HPV-39	Vaccine	456	34	1318.24	2.6	1.8	3.6	13.5	-41.6	47.4
		Placebo	432	37	1240.31	3.0	2.1	4.1	-	-	-
	HPV-45	Vaccine	460	5	1380.16	0.4	0.1	0.8	77.7	39.3	93.4
		Placebo	438	21	1291.81	1.6	1.0	2.5	-	-	-
	HPV-51	Vaccine	444	56	1233.70	4.5	3.4	5.9	0.3	-47.4	32.5
		Placebo	426	55	1208.26	4.6	3.4	5.9	-	-	-
	HPV-52	Vaccine	453	47	1278.82	3.7	2.7	4.9	-2.5	-58.7	33.7
		Placebo	424	43	1198.97	3.6	2.6	4.8	-	-	-
	HPV-56	Vaccine	456	34	1312.47	2.6	1.8	3.6	9.4	-48.9	45.0
		Placebo	436	36	1258.83	2.9	2.0	4.0	-	-	-
	HPV-58	Vaccine	458	15	1349.51	1.1	0.6	1.8	25.2	-55.4	64.6

		Placebo	435	19	1278.74	1.5	0.9	2.3	-	-	-
	HPV-59	Vaccine	458	17	1344.29	1.3	0.7	2.0	-26.2	-182.6	42.3
		Placebo	438	13	1297.46	1.0	0.5	1.7	-	-	-
	HPV-66	Vaccine	450	45	1285.02	3.5	2.6	4.7	-42.7	-134.6	12.1
		Placebo	423	30	1222.43	2.5	1.7	3.5	-	-	-
	HPV-68	Vaccine	453	27	1324.30	2.0	1.3	3.0	22.5	-32.9	55.2
		Placebo	431	33	1254.26	2.6	1.8	3.7	-	-	-

N = number of subjects included in each group  
n = number of subjects reporting at least one event in each group  
T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group  
n/T = person-year rate in each group  
95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit  
VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**  
Incidence rates and vaccine efficacy against persistent infection (6-month) with HPV-16 and/or HPV-18 using Conditional exact method (Cervical samples only, ATP cohort for efficacy)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-16	Vaccine	304	0	835.76	0.0	0.0	0.4	100	79.0	100
		Placebo	277	17	722.75	2.4	1.4	3.8	-	-	-
	HPV-18	Vaccine	304	0	835.76	0.0	0.0	0.4	100	59.4	100
		Placebo	285	10	760.84	1.3	0.6	2.4	-	-	-
	HPV-16/18	Vaccine	304	0	835.76	0.0	0.0	0.4	100	85.9	100
		Placebo	277	24	708.27	3.4	2.2	5.0	-	-	-
HPV-001/007 combined	HPV-16	Vaccine	401	0	1220.16	0.0	0.0	0.3	100	87.1	100
		Placebo	372	27	1076.09	2.5	1.7	3.7	-	-	-
	HPV-18	Vaccine	401	0	1220.16	0.0	0.0	0.3	100	60.1	100
		Placebo	372	10	1091.95	0.9	0.4	1.7	-	-	-
	HPV-16/18	Vaccine	401	0	1220.16	0.0	0.0	0.3	100	90.0	100
		Placebo	372	34	1061.61	3.2	2.2	4.5	-	-	-

N = number of subjects included in each group  
n = number of subjects reporting at least one event in each group  
T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group  
n/T = person-year rate in each group  
95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit  
VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**  
Incidence rates and vaccine efficacy against persistent infection (6-month) with high-risk HPV types using Conditional exact method (Cervical samples only, ATP cohort for efficacy)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-HR	Vaccine	281	53	669.68	7.9	5.9	10.4	23.1	-12.9	47.8
		Placebo	264	61	592.49	10.3	7.9	13.2	-	-	-
	HPV-HRW	Vaccine	281	53	669.68	7.9	5.9	10.4	-3.3	-55.9	31.4
		Placebo	264	48	626.45	7.7	5.6	10.2	-	-	-
HPV-001/007 combined	HPV-HR	Vaccine	375	61	1003.61	6.1	4.6	7.8	22.5	-10.9	45.9
		Placebo	343	70	892.81	7.8	6.1	9.9	-	-	-
	HPV-HRW	Vaccine	375	61	1003.61	6.1	4.6	7.8	-4.4	-53.5	28.8
		Placebo	343	54	927.49	5.8	4.4	7.6	-	-	-

HPV-HRW = High-risk HPV types without HPV-16 and HPV-18  
N = number of subjects included in each group  
n = number of subjects reporting at least one event in each group  
T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group

n/T = person-year rate in each group  
 95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit  
 VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**  
 Incidence rates and vaccine efficacy against persistent infection (6-month) with each HR HPV type using Conditional exact method (ATP cohort for efficacy)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-31	Vaccine	345	5	938.22	0.5	0.2	1.2	33.5	-143.4	83.4
		Placebo	328	7	873.64	0.8	0.3	1.7	-	-	-
	HPV-33	Vaccine	344	4	936.14	0.4	0.1	1.1	3.5	-418.2	82.0
		Placebo	334	4	903.53	0.4	0.1	1.1	-	-	-
	HPV-35	Vaccine	344	3	938.98	0.3	0.1	0.9	68.2	-27.2	94.5
		Placebo	335	9	894.51	1.0	0.5	1.9	-	-	-
	HPV-39	Vaccine	343	9	923.12	1.0	0.4	1.9	14.7	-133.6	69.3
		Placebo	330	10	874.95	1.1	0.5	2.1	-	-	-
	HPV-45	Vaccine	347	2	948.35	0.2	0.0	0.8	36.0	-459.0	94.7
		Placebo	337	3	910.93	0.3	0.1	1.0	-	-	-
	HPV-51	Vaccine	333	16	882.41	1.8	1.0	2.9	-12.2	-148.2	48.7
		Placebo	327	14	866.07	1.6	0.9	2.7	-	-	-
	HPV-52	Vaccine	342	20	900.96	2.2	1.4	3.4	-33.3	-185.3	36.0
		Placebo	320	14	840.71	1.7	0.9	2.8	-	-	-
	HPV-56	Vaccine	342	7	927.77	0.8	0.3	1.6	44.6	-52.6	81.5
		Placebo	333	12	881.10	1.4	0.7	2.4	-	-	-
	HPV-58	Vaccine	343	6	930.46	0.6	0.2	1.4	3.7	-260.1	74.3
		Placebo	333	6	895.75	0.7	0.2	1.5	-	-	-
	HPV-59	Vaccine	345	3	941.01	0.3	0.1	0.9	27.7	-327.6	89.4
		Placebo	337	4	907.53	0.4	0.1	1.1	-	-	-
HPV-66	Vaccine	338	12	907.70	1.3	0.7	2.3	-13.9	-194.3	54.9	
	Placebo	324	10	861.51	1.2	0.6	2.1	-	-	-	
HPV-68	Vaccine	340	5	928.19	0.5	0.2	1.3	20.0	-214.5	80.7	
	Placebo	331	6	890.70	0.7	0.2	1.5	-	-	-	
HPV-001/007 combined	HPV-31	Vaccine	455	5	1372.73	0.4	0.1	0.9	47.7	-73.8	86.2
		Placebo	430	9	1292.18	0.7	0.3	1.3	-	-	-
	HPV-33	Vaccine	458	6	1372.49	0.4	0.2	1.0	-15.5	-378.4	70.6
		Placebo	436	5	1320.93	0.4	0.1	0.9	-	-	-
	HPV-35	Vaccine	458	3	1377.34	0.2	0.0	0.6	71.4	-11.0	94.9
		Placebo	437	10	1311.84	0.8	0.4	1.4	-	-	-
	HPV-39	Vaccine	456	11	1357.61	0.8	0.4	1.4	20.1	-93.3	67.6
		Placebo	432	13	1282.10	1.0	0.5	1.7	-	-	-
	HPV-45	Vaccine	460	2	1387.90	0.1	0.0	0.5	52.1	-233.9	95.7
		Placebo	438	4	1328.28	0.3	0.1	0.8	-	-	-
	HPV-51	Vaccine	444	18	1303.64	1.4	0.8	2.2	2.4	-99.0	52.1
		Placebo	426	18	1272.97	1.4	0.8	2.2	-	-	-
	HPV-52	Vaccine	453	22	1330.68	1.7	1.0	2.5	-8.2	-111.4	44.1
		Placebo	424	19	1243.68	1.5	0.9	2.4	-	-	-
	HPV-56	Vaccine	456	10	1363.13	0.7	0.4	1.3	26.7	-81.0	71.2
		Placebo	436	13	1299.40	1.0	0.5	1.7	-	-	-
	HPV-58	Vaccine	458	7	1368.51	0.5	0.2	1.1	4.3	-219.8	71.3
		Placebo	435	7	1310.10	0.5	0.2	1.1	-	-	-
	HPV-59	Vaccine	458	5	1377.39	0.4	0.1	0.8	-20.5	-507.1	74.1
		Placebo	438	4	1327.49	0.3	0.1	0.8	-	-	-
HPV-66	Vaccine	450	14	1337.97	1.0	0.6	1.8	-10.5	-161.5	52.6	

		Placebo	423	12	1267.28	0.9	0.5	1.7	-	-	-
	HPV-68	Vaccine	453	5	1360.70	0.4	0.1	0.9	40.2	-107.2	84.6
		Placebo	431	8	1300.96	0.6	0.3	1.2	-	-	-

N = number of subjects included in each group  
n = number of subjects reporting at least one event in each group  
T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group  
n/T = person-year rate in each group  
95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit  
VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**  
Incidence rates and vaccine efficacy against CIN1+ associated with HPV-16 and/or HPV-18 using Conditional exact method  
(Total cohort)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-16	Vaccine	358	0	975.13	0.0	0.0	0.4	100	34.8	100
		Placebo	339	7	916.44	0.8	0.3	1.6	-	-	-
	HPV-18	Vaccine	358	0	975.13	0.0	0.0	0.4	100	-132.3	100
		Placebo	345	3	936.12	0.3	0.1	0.9	-	-	-
	HPV-16/18	Vaccine	358	0	975.13	0.0	0.0	0.4	100	52.6	100
		Placebo	339	9	913.20	1.0	0.5	1.9	-	-	-
HPV-001/007 combined	HPV-16	Vaccine	481	0	1660.85	0.0	0.0	0.2	100	68.6	100
		Placebo	470	13	1589.17	0.8	0.4	1.4	-	-	-
	HPV-18	Vaccine	481	0	1660.85	0.0	0.0	0.2	100	-132.0	100
		Placebo	470	3	1592.49	0.2	0.0	0.6	-	-	-
	HPV-16/18	Vaccine	481	0	1660.85	0.0	0.0	0.2	100	73.4	100
		Placebo	470	15	1585.92	0.9	0.5	1.6	-	-	-

N = number of subjects included in each group  
n = number of subjects reporting at least one event in each group  
T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group  
n/T = person-year rate in each group  
95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit  
VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**  
Incidence rates and vaccine efficacy against CIN1+ associated with oncogenic HPV types using Conditional exact method  
(Total cohort)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-HR	Vaccine	358	10	965.27	1.0	0.5	1.9	57.1	5.7	81.9
		Placebo	345	22	910.16	2.4	1.5	3.7	-	-	-
	HPV-HRW	Vaccine	358	10	965.27	1.0	0.5	1.9	40.8	-38.8	76.0
		Placebo	345	16	914.70	1.7	1.0	2.8	-	-	-
HPV-001/007 combined	HPV-HR	Vaccine	481	14	1639.92	0.9	0.5	1.4	57.2	17.2	79.0
		Placebo	470	31	1553.35	2.0	1.4	2.8	-	-	-
	HPV-HRW	Vaccine	481	14	1639.92	0.9	0.5	1.4	36.6	-30.7	70.2
		Placebo	470	21	1558.78	1.3	0.8	2.1	-	-	-

HPV-HR = High-risk (oncogenic) HPV types: HPV-16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68  
HPV-HRW = High-risk (oncogenic) HPV types without HPV-16 or HPV-18: HPV-31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68

N = number of subjects included in each group  
n = number of subjects reporting at least one event in each group  
T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group  
n/T = person-year rate in each group  
95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit

VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**

Incidence rates and vaccine efficacy against CIN1+ associated with each oncogenic HPV type using Conditional exact method (Total cohort)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-31	Vaccine	392	1	1066.07	0.1	0.0	0.5	3.9	-7440.3	98.8
		Placebo	377	1	1024.05	0.1	0.0	0.5	-	-	-
	HPV-33	Vaccine	390	1	1060.24	0.1	0.0	0.5	51.5	-832.6	99.2
		Placebo	380	2	1029.47	0.2	0.0	0.7	-	-	-
	HPV-35	Vaccine	392	2	1063.90	0.2	0.0	0.7	61.4	-135.7	96.3
		Placebo	380	5	1026.32	0.5	0.2	1.1	-	-	-
	HPV-39	Vaccine	393	2	1068.03	0.2	0.0	0.7	3.5	-1230.9	93.0
		Placebo	381	2	1030.31	0.2	0.0	0.7	-	-	-
	HPV-45	Vaccine	392	0	1067.90	0.0	0.0	0.3	.	.	.
		Placebo	380	0	1031.68	0.0	0.0	0.4	-	-	-
	HPV-51	Vaccine	383	3	1037.56	0.3	0.1	0.8	26.2	-336.1	89.2
		Placebo	378	4	1020.59	0.4	0.1	1.0	-	-	-
	HPV-52	Vaccine	390	2	1059.54	0.2	0.0	0.7	72.7	-43.2	97.2
		Placebo	376	7	1010.89	0.7	0.3	1.4	-	-	-
	HPV-56	Vaccine	389	0	1061.08	0.0	0.0	0.3	100	-414.8	100
		Placebo	379	2	1025.95	0.2	0.0	0.7	-	-	-
	HPV-58	Vaccine	391	0	1064.84	0.0	0.0	0.3	100	-411.1	100
		Placebo	378	2	1022.07	0.2	0.0	0.7	-	-	-
	HPV-59	Vaccine	392	1	1066.13	0.1	0.0	0.5	3.5	-7476.6	98.8
		Placebo	380	1	1029.04	0.1	0.0	0.5	-	-	-
HPV-66	Vaccine	389	3	1056.67	0.3	0.1	0.8	-44.5	-1630.0	83.4	
	Placebo	375	2	1017.89	0.2	0.0	0.7	-	-	-	
HPV-68	Vaccine	392	1	1068.30	0.1	0.0	0.5	.	.	97.5	
	Placebo	378	0	1028.14	0.0	0.0	0.4	-	-	-	
HPV-001/007 combined	HPV-31	Vaccine	528	1	1819.31	0.1	0.0	0.3	51.5	-830.7	99.2
		Placebo	516	2	1763.04	0.1	0.0	0.4	-	-	-
	HPV-33	Vaccine	529	3	1813.98	0.2	0.0	0.5	-46.4	-1652.4	83.2
		Placebo	519	2	1770.05	0.1	0.0	0.4	-	-	-
	HPV-35	Vaccine	530	3	1819.89	0.2	0.0	0.5	41.8	-199.2	91.0
		Placebo	518	5	1765.40	0.3	0.1	0.7	-	-	-
	HPV-39	Vaccine	529	2	1822.77	0.1	0.0	0.4	3.0	-1238.1	93.0
		Placebo	517	2	1767.89	0.1	0.0	0.4	-	-	-
	HPV-45	Vaccine	528	0	1821.14	0.0	0.0	0.2	.	.	.
		Placebo	518	0	1769.51	0.0	0.0	0.2	-	-	-
	HPV-51	Vaccine	517	5	1774.30	0.3	0.1	0.7	1.1	-329.8	77.2
		Placebo	515	5	1755.17	0.3	0.1	0.7	-	-	-
	HPV-52	Vaccine	524	3	1806.28	0.2	0.0	0.5	63.8	-50.9	93.8
		Placebo	515	8	1744.47	0.5	0.2	0.9	-	-	-
	HPV-56	Vaccine	526	1	1813.07	0.1	0.0	0.3	51.4	-833.7	99.2
		Placebo	517	2	1762.53	0.1	0.0	0.4	-	-	-
	HPV-58	Vaccine	529	1	1819.58	0.1	0.0	0.3	67.8	-301.2	99.4
		Placebo	517	3	1758.65	0.2	0.0	0.5	-	-	-
	HPV-59	Vaccine	528	1	1818.87	0.1	0.0	0.3	2.8	-7532.8	98.8
		Placebo	519	1	1768.62	0.1	0.0	0.3	-	-	-
HPV-66	Vaccine	524	3	1804.90	0.2	0.0	0.5	3.1	-623.7	87.0	



		Placebo	513	3	1749.46	0.2	0.0	0.5	-	-	-
	HPV-68	Vaccine	528	1	1821.54	0.1	0.0	0.3	.	.	97.5
		Placebo	515	0	1761.72	0.0	0.0	0.2	-	-	-

N = number of subjects included in each group  
n = number of subjects reporting at least one event in each group  
T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group  
n/T = person-year rate in each group  
95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit  
VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**  
Incidence rates and vaccine efficacy against CIN2+ associated with HPV-16 and/or HPV-18 using Conditional exact method  
(Total cohort)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-16	Vaccine	358	0	975.13	0.0	0.0	0.4	100	-129.7	100
		Placebo	342	3	925.75	0.3	0.1	0.9	-	-	-
	HPV-18	Vaccine	358	0	975.13	0.0	0.0	0.4	100	-132.3	100
		Placebo	345	3	936.12	0.3	0.1	0.9	-	-	-
	HPV-16/18	Vaccine	358	0	975.13	0.0	0.0	0.4	100	19.7	100
		Placebo	342	6	922.22	0.7	0.2	1.4	-	-	-
HPV-001/007 combined	HPV-16	Vaccine	481	0	1660.85	0.0	0.0	0.2	100	18.2	100
		Placebo	470	6	1598.98	0.4	0.1	0.8	-	-	-
	HPV-18	Vaccine	481	0	1660.85	0.0	0.0	0.2	100	-133.3	100
		Placebo	470	3	1601.05	0.2	0.0	0.5	-	-	-
	HPV-16/18	Vaccine	481	0	1660.85	0.0	0.0	0.2	100	51.3	100
		Placebo	470	9	1595.45	0.6	0.3	1.1	-	-	-

N = number of subjects included in each group  
n = number of subjects reporting at least one event in each group  
T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group  
n/T = person-year rate in each group  
95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit  
VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**  
Incidence rates and vaccine efficacy against CIN2+ associated with oncogenic HPV types using Conditional exact method  
(Total cohort)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-HR	Vaccine	358	4	971.25	0.4	0.1	1.1	73.0	14.0	93.5
		Placebo	345	14	918.05	1.5	0.8	2.6	-	-	-
	HPV-HRW	Vaccine	358	4	971.25	0.4	0.1	1.1	65.5	-16.5	92.0
		Placebo	345	11	922.12	1.2	0.6	2.1	-	-	-
HPV-001/007 combined	HPV-HR	Vaccine	481	5	1649.95	0.3	0.1	0.7	70.0	14.3	91.4
		Placebo	470	16	1583.40	1.0	0.6	1.6	-	-	-
	HPV-HRW	Vaccine	481	5	1649.95	0.3	0.1	0.7	56.3	-36.6	88.1
		Placebo	470	11	1587.87	0.7	0.3	1.2	-	-	-

HPV-HR = High-risk (oncogenic) HPV types: HPV-16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68  
HPV-HRW = High-risk (oncogenic) HPV types without HPV-16 or HPV-18: HPV-31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68

N = number of subjects included in each group  
n = number of subjects reporting at least one event in each group  
T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group  
n/T = person-year rate in each group

95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit

VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**

Incidence rates and vaccine efficacy against CIN2+ associated with each HR HPV type using Conditional exact method (Total cohort)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-31	Vaccine	392	0	1067.88	0.0	0.0	0.3	.	.	.
		Placebo	378	0	1028.84	0.0	0.0	0.4	-	-	-
	HPV-33	Vaccine	390	0	1062.05	0.0	0.0	0.3	100	-3689.7	100
		Placebo	380	1	1032.02	0.1	0.0	0.5	-	-	-
	HPV-35	Vaccine	392	1	1066.51	0.1	0.0	0.5	80.8	-72.0	99.6
		Placebo	380	5	1026.32	0.5	0.2	1.1	-	-	-
	HPV-39	Vaccine	393	0	1070.80	0.0	0.0	0.3	100	-412.3	100
		Placebo	381	2	1030.31	0.2	0.0	0.7	-	-	-
	HPV-45	Vaccine	392	0	1067.90	0.0	0.0	0.3	.	.	.
		Placebo	380	0	1031.68	0.0	0.0	0.4	-	-	-
	HPV-51	Vaccine	383	1	1040.63	0.1	0.0	0.5	67.2	-308.5	99.4
		Placebo	379	3	1023.87	0.3	0.1	0.9	-	-	-
	HPV-52	Vaccine	390	1	1059.54	0.1	0.0	0.5	76.0	-142.7	99.5
		Placebo	377	4	1018.04	0.4	0.1	1.0	-	-	-
	HPV-56	Vaccine	389	0	1061.08	0.0	0.0	0.3	100	-3681.3	100
		Placebo	379	1	1028.78	0.1	0.0	0.5	-	-	-
	HPV-58	Vaccine	392	0	1067.88	0.0	0.0	0.3	100	-3649.2	100
		Placebo	379	1	1026.58	0.1	0.0	0.5	-	-	-
	HPV-59	Vaccine	392	1	1066.13	0.1	0.0	0.5	.	.	97.5
		Placebo	380	0	1031.87	0.0	0.0	0.4	-	-	-
HPV-66	Vaccine	389	0	1059.04	0.0	0.0	0.3	.	.	.	
	Placebo	376	0	1022.20	0.0	0.0	0.4	-	-	-	
HPV-68	Vaccine	392	1	1068.30	0.1	0.0	0.5	.	.	97.5	
	Placebo	378	0	1028.14	0.0	0.0	0.4	-	-	-	
HPV-001/007 combined	HPV-31	Vaccine	528	0	1821.12	0.0	0.0	0.2	.	.	.
		Placebo	516	0	1768.83	0.0	0.0	0.2	-	-	-
	HPV-33	Vaccine	529	2	1815.79	0.1	0.0	0.4	-95.6	-11437.7	89.8
		Placebo	519	1	1775.52	0.1	0.0	0.3	-	-	-
	HPV-35	Vaccine	530	2	1822.50	0.1	0.0	0.4	61.2	-137.1	96.3
		Placebo	518	5	1768.32	0.3	0.1	0.7	-	-	-
	HPV-39	Vaccine	529	0	1825.54	0.0	0.0	0.2	100	-416.5	100
		Placebo	517	2	1770.80	0.1	0.0	0.4	-	-	-
	HPV-45	Vaccine	528	0	1821.14	0.0	0.0	0.2	.	.	.
		Placebo	518	0	1772.42	0.0	0.0	0.2	-	-	-
	HPV-51	Vaccine	517	1	1778.37	0.1	0.0	0.3	67.0	-311.2	99.4
		Placebo	515	3	1761.37	0.2	0.0	0.5	-	-	-
	HPV-52	Vaccine	524	1	1806.78	0.1	0.0	0.3	75.7	-145.5	99.5
		Placebo	515	4	1755.53	0.2	0.1	0.6	-	-	-
	HPV-56	Vaccine	526	1	1813.07	0.1	0.0	0.3	2.5	-7555.8	98.8
		Placebo	517	1	1768.28	0.1	0.0	0.3	-	-	-
	HPV-58	Vaccine	529	0	1822.62	0.0	0.0	0.2	100	-3679.0	100
		Placebo	517	1	1766.08	0.1	0.0	0.3	-	-	-
	HPV-59	Vaccine	528	1	1818.87	0.1	0.0	0.3	.	.	97.5
		Placebo	519	0	1774.37	0.0	0.0	0.2	-	-	-
HPV-66	Vaccine	524	0	1807.27	0.0	0.0	0.2	.	.	.	

		Placebo	513	0	1756.69	0.0	0.0	0.2	-	-	-
	HPV-68	Vaccine	528	1	1821.54	0.1	0.0	0.3	.	.	97.5
		Placebo	515	0	1764.64	0.0	0.0	0.2	-	-	-

N = number of subjects included in each group  
n = number of subjects reporting at least one event in each group  
T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group  
n/T = person-year rate in each group  
95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit  
VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**  
Incidence rates and vaccine efficacy against cytological abnormalities (ASC-US) associated with HPV-16 and/or HPV-18 using Conditional exact method (Total cohort)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-16	Vaccine	357	0	976.60	0.0	0.0	0.4	100	69.4	100
		Placebo	340	13	911.98	1.4	0.8	2.4	-	-	-
	HPV-18	Vaccine	358	0	978.51	0.0	0.0	0.4	100	35.1	100
		Placebo	339	7	915.05	0.8	0.3	1.6	-	-	-
	HPV-16/18	Vaccine	357	0	976.60	0.0	0.0	0.4	100	80.5	100
		Placebo	335	19	889.24	2.1	1.3	3.3	-	-	-
HPV-001/007 combined	HPV-16	Vaccine	505	1	1841.02	0.1	0.0	0.3	95.7	73.3	99.9
		Placebo	497	22	1745.66	1.3	0.8	1.9	-	-	-
	HPV-18	Vaccine	505	0	1841.52	0.0	0.0	0.2	100	75.5	100
		Placebo	497	16	1740.28	0.9	0.5	1.5	-	-	-
	HPV-16/18	Vaccine	505	1	1841.02	0.1	0.0	0.3	97.3	83.6	99.9
		Placebo	497	34	1718.91	2.0	1.4	2.8	-	-	-

N = number of subjects included in each group  
n = number of subjects reporting at least one event in each group  
T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group  
n/T = person-year rate in each group  
95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit  
VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**  
Incidence rates and vaccine efficacy against cytological abnormalities (ASC-US) associated with oncogenic HPV types using Conditional exact method (Total cohort)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-HR	Vaccine	358	36	922.25	3.9	2.7	5.4	17.2	-32.8	48.6
		Placebo	344	41	869.61	4.7	3.4	6.4	-	-	-
	HPV-HRW	Vaccine	358	36	922.25	3.9	2.7	5.4	-23.9	-110.8	26.5
		Placebo	344	28	888.60	3.2	2.1	4.6	-	-	-
HPV-001/007 combined	HPV-HR	Vaccine	505	46	1759.04	2.6	1.9	3.5	41.7	14.5	60.6
		Placebo	497	73	1627.35	4.5	3.5	5.6	-	-	-
	HPV-HRW	Vaccine	505	45	1759.54	2.6	1.9	3.4	23.3	-15.8	49.5
		Placebo	497	55	1649.17	3.3	2.5	4.3	-	-	-

HPV-HR = High-risk (oncogenic) HPV types: HPV-16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68  
HPV-HRW = High-risk (oncogenic) HPV types without HPV-16 or HPV-18: HPV-31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68

N = number of subjects included in each group  
n = number of subjects reporting at least one event in each group  
T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group  
n/T = person-year rate in each group

95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit

VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**

Incidence rates and vaccine efficacy against cytological abnormalities (ASC-US) associated with each oncogenic HPV type using Conditional exact method (Total cohort)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-31	Vaccine	392	2	1066.74	0.2	0.0	0.7	52.1	-234.1	95.7
		Placebo	377	4	1021.56	0.4	0.1	1.0	-	-	-
	HPV-33	Vaccine	392	2	1070.16	0.2	0.0	0.7	4.3	-1220.3	93.1
		Placebo	377	2	1024.14	0.2	0.0	0.7	-	-	-
	HPV-35	Vaccine	392	2	1067.75	0.2	0.0	0.7	52.2	-233.5	95.7
		Placebo	377	4	1020.76	0.4	0.1	1.0	-	-	-
	HPV-39	Vaccine	391	7	1056.72	0.7	0.3	1.4	3.4	-222.8	71.1
		Placebo	379	7	1020.85	0.7	0.3	1.4	-	-	-
	HPV-45	Vaccine	392	0	1071.27	0.0	0.0	0.3	100	-3647.9	100
		Placebo	379	1	1029.49	0.1	0.0	0.5	-	-	-
	HPV-51	Vaccine	380	9	1021.55	0.9	0.4	1.7	2.1	-178.4	65.6
		Placebo	375	9	1000.21	0.9	0.4	1.7	-	-	-
	HPV-52	Vaccine	388	9	1048.78	0.9	0.4	1.6	30.0	-81.0	73.9
		Placebo	367	12	979.03	1.2	0.6	2.1	-	-	-
	HPV-56	Vaccine	389	6	1047.76	0.6	0.2	1.2	16.8	-189.1	76.9
		Placebo	377	7	1017.02	0.7	0.3	1.4	-	-	-
	HPV-58	Vaccine	390	4	1059.41	0.4	0.1	1.0	3.8	-416.3	82.1
		Placebo	376	4	1018.68	0.4	0.1	1.0	-	-	-
	HPV-59	Vaccine	390	4	1059.15	0.4	0.1	1.0	.	.	35.7
		Placebo	379	0	1031.15	0.0	0.0	0.4	-	-	-
HPV-66	Vaccine	388	7	1053.96	0.7	0.3	1.4	-574.4	-30294.2	13.4	
	Placebo	374	1	1015.40	0.1	0.0	0.5	-	-	-	
HPV-68	Vaccine	391	3	1066.19	0.3	0.1	0.8	-42.7	-1608.5	83.7	
	Placebo	373	2	1014.28	0.2	0.0	0.7	-	-	-	
HPV-001/007 combined	HPV-31	Vaccine	558	3	2015.73	0.1	0.0	0.4	51.8	-125.9	92.2
		Placebo	547	6	1944.55	0.3	0.1	0.7	-	-	-
	HPV-33	Vaccine	559	2	2021.91	0.1	0.0	0.4	61.5	-135.2	96.3
		Placebo	549	5	1946.25	0.3	0.1	0.6	-	-	-
	HPV-35	Vaccine	560	4	2018.99	0.2	0.1	0.5	45.1	-116.1	88.2
		Placebo	549	7	1941.37	0.4	0.1	0.7	-	-	-
	HPV-39	Vaccine	559	10	2006.21	0.5	0.2	0.9	-7.5	-198.9	60.8
		Placebo	548	9	1940.46	0.5	0.2	0.9	-	-	-
	HPV-45	Vaccine	556	0	2020.26	0.0	0.0	0.2	100	-413.7	100
		Placebo	549	2	1949.10	0.1	0.0	0.4	-	-	-
	HPV-51	Vaccine	546	12	1949.28	0.6	0.3	1.1	9.2	-115.8	62.1
		Placebo	546	13	1917.20	0.7	0.4	1.2	-	-	-
	HPV-52	Vaccine	553	12	1988.02	0.6	0.3	1.1	56.2	10.0	79.8
		Placebo	546	26	1888.77	1.4	0.9	2.0	-	-	-
	HPV-56	Vaccine	555	7	1995.00	0.4	0.1	0.7	24.6	-127.6	76.1
		Placebo	548	9	1934.63	0.5	0.2	0.9	-	-	-
	HPV-58	Vaccine	559	6	2008.65	0.3	0.1	0.7	17.4	-186.9	77.1
		Placebo	547	7	1934.54	0.4	0.1	0.7	-	-	-
	HPV-59	Vaccine	558	6	2006.65	0.3	0.1	0.7	-484.2	-26771.1	29.1
		Placebo	550	1	1953.76	0.1	0.0	0.3	-	-	-

	HPV-66	Vaccine	554	9	1996.45	0.5	0.2	0.9	-117.3	-865.6	39.4
		Placebo	543	4	1928.01	0.2	0.1	0.5	-	-	-
	HPV-68	Vaccine	558	4	2015.18	0.2	0.1	0.5	57.5	-52.2	90.4
		Placebo	546	9	1925.89	0.5	0.2	0.9	-	-	-

N = number of subjects included in each group  
n = number of subjects reporting at least one event in each group  
T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group  
n/T = person-year rate in each group  
95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit  
VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**  
Incidence rates and vaccine efficacy against cytological abnormalities (LSIL) associated with HPV-16 and/or HPV-18 using Conditional exact method (Total cohort)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-16	Vaccine	357	0	976.60	0.0	0.0	0.4	100	63.8	100
		Placebo	334	11	888.05	1.2	0.6	2.2	-	-	-
	HPV-18	Vaccine	358	0	978.51	0.0	0.0	0.4	100	19.8	100
		Placebo	343	6	923.91	0.6	0.2	1.4	-	-	-
	HPV-16/18	Vaccine	357	0	976.60	0.0	0.0	0.4	100	76.7	100
		Placebo	333	16	876.08	1.8	1.0	3.0	-	-	-
HPV-001/007 combined	HPV-16	Vaccine	505	1	1840.02	0.1	0.0	0.3	96.1	76.1	99.9
		Placebo	497	24	1721.47	1.4	0.9	2.1	-	-	-
	HPV-18	Vaccine	505	1	1840.77	0.1	0.0	0.3	88.2	12.2	99.7
		Placebo	497	8	1733.22	0.5	0.2	0.9	-	-	-
	HPV-16/18	Vaccine	505	2	1839.27	0.1	0.0	0.4	93.8	75.6	99.3
		Placebo	497	30	1708.26	1.8	1.2	2.5	-	-	-

N = number of subjects included in each group  
n = number of subjects reporting at least one event in each group  
T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group  
n/T = person-year rate in each group  
95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit  
VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**  
Incidence rates and vaccine efficacy against cytological abnormalities (LSIL) associated with oncogenic HPV types using Conditional exact method (Total cohort)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-HR	Vaccine	357	33	928.51	3.6	2.4	5.0	31.5	-9.8	57.6
		Placebo	345	45	867.75	5.2	3.8	6.9	-	-	-
	HPV-HRW	Vaccine	357	33	928.51	3.6	2.4	5.0	19.4	-31.4	50.9
		Placebo	345	39	883.90	4.4	3.1	6.0	-	-	-
HPV-001/007 combined	HPV-HR	Vaccine	505	47	1755.72	2.7	2.0	3.6	40.8	13.4	59.9
		Placebo	497	73	1614.12	4.5	3.5	5.7	-	-	-
	HPV-HRW	Vaccine	505	46	1757.22	2.6	1.9	3.5	34.3	2.6	56.0
		Placebo	497	65	1632.01	4.0	3.1	5.1	-	-	-

HPV-HR = High-risk (oncogenic) HPV types: HPV-16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68  
HPV-HRW = High-risk (oncogenic) HPV types without HPV-16 or HPV-18: HPV-31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68

N = number of subjects included in each group  
n = number of subjects reporting at least one event in each group  
T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group  
n/T = person-year rate in each group

95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit

VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**

Incidence rates and vaccine efficacy against cytological abnormalities ( $\geq$ LSIL) associated with each oncogenic HPV using Conditional exact method (Total cohort)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-31	Vaccine	389	4	1054.71	0.4	0.1	1.0	4.1	-414.6	82.1
		Placebo	373	4	1010.94	0.4	0.1	1.0	-	-	-
	HPV-33	Vaccine	390	1	1062.55	0.1	0.0	0.5	.	.	97.5
		Placebo	375	0	1022.10	0.0	0.0	0.4	-	-	-
	HPV-35	Vaccine	392	5	1063.98	0.5	0.2	1.1	-60.9	-936.0	68.7
		Placebo	379	3	1027.01	0.3	0.1	0.9	-	-	-
	HPV-39	Vaccine	391	4	1065.49	0.4	0.1	1.0	45.9	-112.8	88.4
		Placebo	375	7	1008.53	0.7	0.3	1.4	-	-	-
	HPV-45	Vaccine	392	1	1070.79	0.1	0.0	0.5	4.3	-7414.7	98.8
		Placebo	378	1	1025.10	0.1	0.0	0.5	-	-	-
	HPV-51	Vaccine	381	11	1027.06	1.1	0.5	1.9	18.3	-97.5	66.9
		Placebo	372	13	991.20	1.3	0.7	2.2	-	-	-
	HPV-52	Vaccine	390	11	1047.32	1.1	0.5	1.9	-4.1	-173.3	59.9
		Placebo	368	10	990.70	1.0	0.5	1.9	-	-	-
	HPV-56	Vaccine	386	9	1042.45	0.9	0.4	1.6	-24.3	-292.7	58.8
		Placebo	373	7	1007.72	0.7	0.3	1.4	-	-	-
	HPV-58	Vaccine	389	5	1057.03	0.5	0.2	1.1	-61.2	-938.2	68.6
		Placebo	377	3	1022.49	0.3	0.1	0.9	-	-	-
	HPV-59	Vaccine	390	2	1062.41	0.2	0.0	0.7	3.8	-1227.3	93.0
		Placebo	378	2	1022.14	0.2	0.0	0.7	-	-	-
HPV-66	Vaccine	387	7	1047.30	0.7	0.3	1.4	17.1	-161.6	74.4	
	Placebo	369	8	992.19	0.8	0.3	1.6	-	-	-	
HPV-68	Vaccine	391	4	1066.32	0.4	0.1	1.0	23.8	-254.1	84.9	
	Placebo	376	5	1015.79	0.5	0.2	1.1	-	-	-	
HPV-001/007 combined	HPV-31	Vaccine	558	8	2000.45	0.4	0.2	0.8	14.3	-150.3	71.2
		Placebo	547	9	1929.43	0.5	0.2	0.9	-	-	-
	HPV-33	Vaccine	559	5	2008.54	0.2	0.1	0.6	3.6	-318.8	77.8
		Placebo	549	5	1936.09	0.3	0.1	0.6	-	-	-
	HPV-35	Vaccine	560	6	2008.15	0.3	0.1	0.7	-44.9	-598.3	65.6
		Placebo	549	4	1940.37	0.2	0.1	0.5	-	-	-
	HPV-39	Vaccine	559	8	2005.40	0.4	0.2	0.8	45.3	-39.6	80.1
		Placebo	548	14	1918.60	0.7	0.4	1.2	-	-	-
	HPV-45	Vaccine	556	1	2010.94	0.0	0.0	0.3	67.9	-299.8	99.4
		Placebo	549	3	1936.67	0.2	0.0	0.5	-	-	-
	HPV-51	Vaccine	546	15	1946.45	0.8	0.4	1.3	33.6	-34.0	68.0
		Placebo	546	22	1895.81	1.2	0.7	1.8	-	-	-
	HPV-52	Vaccine	553	12	1978.97	0.6	0.3	1.1	39.5	-31.2	73.2
		Placebo	546	19	1895.16	1.0	0.6	1.6	-	-	-
	HPV-56	Vaccine	555	14	1977.85	0.7	0.4	1.2	-4.1	-140.6	54.6
		Placebo	548	13	1912.40	0.7	0.4	1.2	-	-	-
	HPV-58	Vaccine	559	8	1996.94	0.4	0.2	0.8	-54.6	-500.5	55.4
		Placebo	547	5	1929.18	0.3	0.1	0.6	-	-	-
	HPV-59	Vaccine	558	5	2003.71	0.2	0.1	0.6	-20.6	-507.6	74.1
		Placebo	550	4	1932.58	0.2	0.1	0.5	-	-	-
HPV-66	Vaccine	554	9	1980.45	0.5	0.2	0.9	49.4	-20.0	80.1	
	Placebo	543	17	1892.00	0.9	0.5	1.4	-	-	-	

	HPV-68	Vaccine	558	7	2005.48	0.3	0.1	0.7	4.1	-220.4	71.3
		Placebo	546	7	1923.20	0.4	0.1	0.7	-	-	-

N = number of subjects included in each group  
n = number of subjects reporting at least one event in each group  
T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group  
n/T = person-year rate in each group  
95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit  
VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**  
Incidence rates and vaccine efficacy against cytological abnormalities (HSIL) associated with HPV-16 and/or HPV-18 using Conditional exact method (Total cohort)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-16	Vaccine	358	0	978.51	0.0	0.0	0.4	100	-3630	100
		Placebo	344	1	935.87	0.1	0.0	0.6	-	-	-
	HPV-18	Vaccine	358	0	978.51	0.0	0.0	0.4	.	.	.
		Placebo	345	0	941.82	0.0	0.0	0.4	-	-	-
	HPV-16/18	Vaccine	358	0	978.51	0.0	0.0	0.4	100	-3630	100
		Placebo	344	1	935.87	0.1	0.0	0.6	-	-	-
HPV-001/007 combined	HPV-16	Vaccine	505	0	1843.43	0.0	0.0	0.2	100	-413	100
		Placebo	497	2	1775.79	0.1	0.0	0.4	-	-	-
	HPV-18	Vaccine	505	0	1843.43	0.0	0.0	0.2	.	.	.
		Placebo	497	0	1779.85	0.0	0.0	0.2	-	-	-
	HPV-16/18	Vaccine	505	0	1843.43	0.0	0.0	0.2	100	-413	100
		Placebo	497	2	1775.79	0.1	0.0	0.4	-	-	-

N = number of subjects included in each group  
n = number of subjects reporting at least one event in each group  
T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group  
n/T = person-year rate in each group  
95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit  
VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**  
Incidence rates and vaccine efficacy against cytological abnormalities (HSIL) associated with oncogenic HPV types using Conditional exact method (Total cohort)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-HR	Vaccine	358	0	978.51	0.0	0.0	0.4	100	19.6	100
		Placebo	344	6	926.73	0.6	0.2	1.4	-	-	-
	HPV-HRW	Vaccine	358	0	978.51	0.0	0.0	0.4	100	19.3	100
		Placebo	345	6	929.63	0.6	0.2	1.4	-	-	-
HPV-001/007 combined	HPV-HR	Vaccine	505	0	1843.43	0.0	0.0	0.2	100	33.5	100
		Placebo	497	7	1766.66	0.4	0.2	0.8	-	-	-
	HPV-HRW	Vaccine	505	0	1843.43	0.0	0.0	0.2	100	18.6	100
		Placebo	497	6	1767.66	0.3	0.1	0.7	-	-	-

HPV-HR = High-risk (oncogenic) HPV types: HPV-16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68  
HPV-HRW = High-risk (oncogenic) HPV types without HPV-16 or HPV-18: HPV-31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68

N = number of subjects included in each group  
n = number of subjects reporting at least one event in each group  
T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group  
n/T = person-year rate in each group  
95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit  
VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**

Incidence rates and vaccine efficacy against cytological abnormalities (HSIL) associated with each oncogenic HPV type using Conditional exact method (Total cohort)

Study	Event Type	Group	N	n	T (year)	Person-year rate			VE		
						n/T (Per 100)	95% CI		%	95% CI	
							LL	UL		LL	UL
HPV-007	HPV-31	Vaccine	392	0	1071.26	0.0	0.0	0.3	.	.	.
		Placebo	378	0	1031.00	0.0	0.0	0.4	-	-	-
	HPV-33	Vaccine	392	0	1071.24	0.0	0.0	0.3	.	.	.
		Placebo	380	0	1036.72	0.0	0.0	0.4	-	-	-
	HPV-35	Vaccine	393	0	1074.17	0.0	0.0	0.3	100	-132.0	100
		Placebo	380	3	1029.71	0.3	0.1	0.9	-	-	-
	HPV-39	Vaccine	393	0	1074.17	0.0	0.0	0.3	.	.	.
		Placebo	381	0	1036.87	0.0	0.0	0.4	-	-	-
	HPV-45	Vaccine	392	0	1071.27	0.0	0.0	0.3	.	.	.
		Placebo	380	0	1033.84	0.0	0.0	0.4	-	-	-
	HPV-51	Vaccine	383	0	1046.63	0.0	0.0	0.4	100	-422.7	100
		Placebo	379	2	1027.44	0.2	0.0	0.7	-	-	-
	HPV-52	Vaccine	390	0	1065.54	0.0	0.0	0.3	100	-3651.6	100
		Placebo	377	1	1024.99	0.1	0.0	0.5	-	-	-
	HPV-56	Vaccine	390	0	1065.47	0.0	0.0	0.3	.	.	.
		Placebo	379	0	1031.46	0.0	0.0	0.4	-	-	-
	HPV-58	Vaccine	392	0	1071.26	0.0	0.0	0.3	100	-410.0	100
		Placebo	379	2	1026.04	0.2	0.0	0.7	-	-	-
	HPV-59	Vaccine	392	0	1071.26	0.0	0.0	0.3	.	.	.
		Placebo	380	0	1034.03	0.0	0.0	0.4	-	-	-
HPV-66	Vaccine	389	0	1062.41	0.0	0.0	0.3	.	.	.	
	Placebo	376	0	1024.36	0.0	0.0	0.4	-	-	-	
HPV-68	Vaccine	392	0	1073.17	0.0	0.0	0.3	.	.	.	
	Placebo	378	0	1030.30	0.0	0.0	0.4	-	-	-	
HPV-001/007 combined	HPV-31	Vaccine	558	0	2020.75	0.0	0.0	0.2	.	.	.
		Placebo	547	0	1954.49	0.0	0.0	0.2	-	-	-
	HPV-33	Vaccine	559	0	2022.99	0.0	0.0	0.2	.	.	.
		Placebo	549	0	1964.22	0.0	0.0	0.2	-	-	-
	HPV-35	Vaccine	560	0	2027.42	0.0	0.0	0.2	100	-133.4	100
		Placebo	549	3	1955.46	0.2	0.0	0.4	-	-	-
	HPV-39	Vaccine	559	0	2025.67	0.0	0.0	0.2	.	.	.
		Placebo	548	0	1961.37	0.0	0.0	0.2	-	-	-
	HPV-45	Vaccine	556	0	2020.26	0.0	0.0	0.2	.	.	.
		Placebo	549	0	1958.09	0.0	0.0	0.2	-	-	-
	HPV-51	Vaccine	546	0	1977.62	0.0	0.0	0.2	100	-424.3	100
		Placebo	546	2	1947.18	0.1	0.0	0.4	-	-	-
	HPV-52	Vaccine	553	0	2006.53	0.0	0.0	0.2	100	-3679.9	100
		Placebo	546	1	1944.73	0.1	0.0	0.3	-	-	-
	HPV-56	Vaccine	555	0	2012.97	0.0	0.0	0.2	.	.	.
		Placebo	548	0	1954.20	0.0	0.0	0.2	-	-	-
	HPV-58	Vaccine	559	0	2022.75	0.0	0.0	0.2	100	-412.9	100
		Placebo	547	2	1948.54	0.1	0.0	0.4	-	-	-
	HPV-59	Vaccine	558	0	2020.26	0.0	0.0	0.2	.	.	.
		Placebo	550	0	1960.53	0.0	0.0	0.2	-	-	-
HPV-66	Vaccine	554	0	2005.41	0.0	0.0	0.2	.	.	.	
	Placebo	543	0	1940.10	0.0	0.0	0.2	-	-	-	
HPV-68	Vaccine	558	0	2023.16	0.0	0.0	0.2	.	.	.	
	Placebo	546	0	1950.55	0.0	0.0	0.2	-	-	-	



N = number of subjects included in each group  
n = number of subjects reporting at least one event in each group  
T (year) = sum of follow-up period expressed in year censored at the first occurrence of event in each group  
n/T = person-year rate in each group  
95% CI = 95% confidence interval, LL = Lower limit, UL = Upper limit  
VE (%) = Vaccine Efficacy (Conditional exact method)

**Secondary Outcome Variable (s):**  
No cases of AGC or ASC-H were detected during this study

**Secondary Outcome Variable (s):**  
Seropositivity rates and GMTs for HPV-16 IgG antibodies (ATP cohort for immunogenicity)

Antibody	Group	Timing	N	n	≥ 8 EL.U/mL			GMT (EL.U/mL)		
					%	95% CI		Value	95% CI	
						LL	UL		LL	UL
HPV-16 IgG	HPV	PRE	301	18	6.0	3.6	9.3	4.3	4.2	4.4
		P111(M7)	301	301	100	98.8	100	4197.5	3766.1	4678.3
		P111(M12)	302	302	100	98.8	100	1241.0	1094.7	1406.8
		P111(M18)	300	299	99.7	98.2	100	737.8	651.0	836.2
		[M25-M32]	71	70	98.6	92.4	100	670.4	489.2	918.8
		[M33-M38]	172	171	99.4	96.8	100	454.7	381.7	541.6
		[M39-M44]	126	126	100	97.1	100	567.8	475.9	677.4
		[M45-M50]	190	190	100	98.1	100	399.4	340.6	468.5
		[M51-M56]	100	100	100	96.4	100	622.8	506.1	766.5
		[M57-M62]	179	179	100	98.0	100	426.7	362.0	503.0
		[M63-M68]	103	103	100	96.5	100	542.3	439.7	668.7
		[M69-M74]	178	177	99.4	96.9	100	394.3	332.0	468.4
		[M75-M76]	52	52	100	93.2	100	463.6	360.8	595.5
	Placebo	PRE	5	0	0.0	0.0	52.2	4.0	4.0	4.0
		P111(M7)	5	1	20.0	0.5	71.6	4.9	2.8	8.6
		P111(M12)	5	0	0.0	0.0	52.2	4.0	4.0	4.0
		P111(M18)	5	0	0.0	0.0	52.2	4.0	4.0	4.0
		[M25-M32]	54	5	9.3	3.1	20.3	4.4	4.0	4.7
		[M33-M38]	131	14	10.7	6.0	17.3	4.9	4.3	5.4
		[M39-M44]	85	10	11.8	5.8	20.6	4.8	4.3	5.5
		[M45-M50]	142	16	11.3	6.6	17.7	4.8	4.3	5.3
		[M51-M56]	69	9	13.0	6.1	23.3	5.1	4.2	6.1
		[M57-M62]	131	26	19.8	13.4	27.7	5.5	4.8	6.2
		[M63-M68]	67	10	14.9	7.4	25.7	4.8	4.3	5.3
		[M69-M74]	130	13	10.0	5.4	16.5	4.8	4.4	5.4
[M75-M76]	35	4	11.4	3.2	26.7	4.6	4.0	5.3		

N = number of subjects with available results  
n (%) = number (percentage) of subjects with concentration above the cut-off  
95% CI = 95% confidence interval; LL = Lower Limit, UL = Upper Limit  
PRE = Pre-vaccination  
Px(My) = Post Dose x (Month y)  
[My1-My2] = Post Dose III (y1≤Month ≤y2)

**Secondary Outcome Variable (s):**  
Seropositivity rates and GMTs for HPV-18 IgG antibodies (ATP cohort for immunogenicity)

Antibody	Group	Timing	N	≥ 7 EL.U/mL			GMT (EL.U/mL)			
				n	%	95% CI		Value	95% CI	
						LL	UL		LL	UL
HPV-18 IgG	HPV	PRE	301	30	10.0	6.8	13.9	3.9	3.8	4.1
		P111(M7)	300	300	100	98.8	100	3358.0	3041.8	3707.0
		P111(M12)	302	302	100	98.8	100	995.3	888.5	1115.0
		P111(M18)	300	299	99.7	98.2	100	591.9	524.7	667.8
		[M25-M32]	71	70	98.6	92.4	100	596.9	439.6	810.5

		[M33-M38]	172	171	99.4	96.8	100	378.6	320.0	447.9	
		[M39-M44]	127	126	99.2	95.7	100	435.1	351.1	539.0	
		[M45-M50]	190	190	100	98.1	100	297.5	254.4	348.0	
		[M51-M56]	100	100	100	96.4	100	454.9	370.8	558.1	
		[M57-M62]	179	179	100	98.0	100	322.5	274.9	378.4	
		[M63-M68]	103	103	100	96.5	100	359.9	295.0	439.2	
		[M69-M74]	178	177	99.4	96.9	100	305.3	258.1	361.1	
		[M75-M76]	52	52	100	93.2	100	279.8	218.0	359.1	
	Placebo	PRE	5	0	0.0	0.0	52.2	3.5	3.5	3.5	
			P111(M7)	5	1	20.0	0.5	71.6	4.1	2.6	6.5
			P111(M12)	5	0	0.0	0.0	52.2	3.5	3.5	3.5
			P111(M18)	5	0	0.0	0.0	52.2	3.5	3.5	3.5
			[M25-M32]	54	4	7.4	2.1	17.9	3.9	3.5	4.3
			[M33-M38]	131	16	12.2	7.1	19.1	4.1	3.8	4.5
			[M39-M44]	87	15	17.2	10.0	26.8	4.6	4.0	5.4
			[M45-M50]	142	19	13.4	8.3	20.1	4.2	3.8	4.5
			[M51-M56]	68	13	19.1	10.6	30.5	4.7	3.8	5.6
			[M57-M62]	131	16	12.2	7.1	19.1	4.2	3.8	4.5
			[M63-M68]	66	10	15.2	7.5	26.1	4.3	3.7	4.9
			[M69-M74]	131	19	14.5	9.0	21.7	4.5	4.0	5.0
			[M75-M76]	35	5	14.3	4.8	30.3	4.3	3.6	5.2

N = number of subjects with available results

n (%) = number (percentage) of subjects with concentration above the cut-off

95% CI = 95% confidence interval; LL = Lower Limit, UL = Upper Limit

PRE = Pre vaccination

Px(My) = Post Dose x (Month y)

[My1-My2] = Post Dose III (y1≤Month ≤y2)

**Safety Results:** Number (%) of subjects with unsolicited AEs<sup>†</sup> from the end of primary study HPV-001 throughout the entire HPV-007 study period (ATP cohort for safety)

Most frequent adverse events	HPV Group N = 373	Placebo Group N = 369
Subjects with any AE(s), n (%)	106 (28.4)	123 (33.3)
Depression	9 (2.4)	9 (2.4)
Abortion spontaneous	6 (1.6)	9 (2.4)
Herpes simplex	5 (1.3)	5 (1.4)
Nephrolithiasis	5 (1.3)	-
Hypothyroidism	3 (0.8)	4 (1.1)
Pulmonary tuberculosis	3 (0.8)	1 (0.3)
Ovarian cyst	3 (0.8)	8 (2.2)
Abortion induced	3 (0.8)	4 (1.1)
Anaemia	2 (0.5)	2 (0.5)
Lymphadenopathy	2 (0.5)	1 (0.3)
Gastritis	2 (0.5)	3 (0.8)
Gastroesophageal reflux disease	2 (0.5)	-
Haemorrhoids	2 (0.5)	2 (0.5)
Anogenital warts	2 (0.5)	5 (1.4)
Bronchopneumonia	2 (0.5)	1 (0.3)
Gynaecological chlamydia infection	2 (0.5)	1 (0.3)
Diabetes mellitus non-insulin-dependent	2 (0.5)	-
Abortion spontaneous complete	2 (0.5)	-
Pre-eclampsia	2 (0.5)	2 (0.5)
Breast mass	2 (0.5)	-
Rash	2 (0.5)	-

Hyperprolactinaemia	1 (0.3)	1 (0.3)
Conjunctivitis	1 (0.3)	-
Abdominal pain lower	1 (0.3)	-
Colitis	1 (0.3)	1 (0.3)
Colitis ulcerative	1 (0.3)	-
Constipation	1 (0.3)	-
Rectal haemorrhage	1 (0.3)	-
Pyrexia	1 (0.3)	-
Cholecystitis acute	1 (0.3)	-
Drug hypersensitivity	1 (0.3)	-
Abscess limb	1 (0.3)	-
Bronchitis	1 (0.3)	-
Cellulitis	1 (0.3)	-
Dengue fever	1 (0.3)	1 (0.3)
Endometritis	1 (0.3)	-
Eye infection bacterial	1 (0.3)	-
Fungal infection	1 (0.3)	-
Hepatitis c	1 (0.3)	-
Infectious mononucleosis	1 (0.3)	-
Labyrinthitis	1 (0.3)	-
Neurocysticercosis	1 (0.3)	-
Pelvic inflammatory disease	1 (0.3)	1 (0.3)
Pharyngitis streptococcal	1 (0.3)	1 (0.3)
Pneumonia	1 (0.3)	1 (0.3)
Postoperative wound infection	1 (0.3)	-
Pyelonephritis	1 (0.3)	2 (0.5)
Sinusitis	1 (0.3)	1 (0.3)
Tubo-ovarian abscess	1 (0.3)	-
Urinary tract infection	1 (0.3)	6 (1.6)
Vaginitis bacterial	1 (0.3)	1 (0.3)
Varicella	1 (0.3)	-
Vulvovaginitis trichomonal	1 (0.3)	-
Anaesthetic complication	1 (0.3)	-
Failed forceps delivery	1 (0.3)	-
Foot fracture	1 (0.3)	-
Head injury	1 (0.3)	-
Hip fracture	1 (0.3)	-
Incisional hernia	1 (0.3)	-
Joint sprain	1 (0.3)	-
Dehydration	1 (0.3)	-
Back pain	1 (0.3)	1 (0.3)
Osteoarthritis	1 (0.3)	-
Tenosynovitis	1 (0.3)	-
Uterine leiomyoma	1 (0.3)	1 (0.3)
Convulsion	1 (0.3)	-
Facial palsy	1 (0.3)	-
Headache	1 (0.3)	2 (0.5)
Migraine	1 (0.3)	-
Abortion missed	1 (0.3)	2 (0.5)
Abortion spontaneous incomplete	1 (0.3)	2 (0.5)
Abortion threatened	1 (0.3)	2 (0.5)
Blighted ovum	1 (0.3)	-

Eclampsia	1 (0.3)	-
Foetal distress syndrome	1 (0.3)	-
Stillbirth	1 (0.3)	-
Attention deficit/hyperactivity disorder	1 (0.3)	-
Insomnia	1 (0.3)	-
Panic reaction	1 (0.3)	2 (0.5)
Suicidal ideation	1 (0.3)	-
Nephritis	1 (0.3)	-
Adenomyosis	1 (0.3)	-
Cervical dysplasia	1 (0.3)	-
Dysfunctional uterine bleeding	1 (0.3)	1 (0.3)
Fallopian tube obstruction	1 (0.3)	-
Menstruation irregular	1 (0.3)	1 (0.3)
Epistaxis	1 (0.3)	-
Pneumonia aspiration	1 (0.3)	-
Rhinitis allergic	1 (0.3)	-
Acne	1 (0.3)	1 (0.3)
Dermatitis allergic	1 (0.3)	-
Dermatitis contact	1 (0.3)	-
Urticaria	1 (0.3)	1 (0.3)
Hypertension	1 (0.3)	3 (0.8)
Splenomegaly	-	1 (0.3)
Angina pectoris	-	1 (0.3)
Mitral valve incompetence	-	1 (0.3)
Ear pain	-	1 (0.3)
Inner ear disorder	-	1 (0.3)
Autoimmune thyroiditis	-	1 (0.3)
Hyperandrogenism	-	1 (0.3)
Abdominal pain	-	1 (0.3)
Irritable bowel syndrome	-	1 (0.3)
Oesophagitis	-	1 (0.3)
Tooth disorder	-	1 (0.3)
Umbilical hernia	-	1 (0.3)
Fatigue	-	1 (0.3)
Malaise	-	1 (0.3)
Cholelithiasis	-	3 (0.8)
Hepatomegaly	-	1 (0.3)
Hypersensitivity	-	1 (0.3)
Latex allergy	-	1 (0.3)
Acarodermatitis	-	2 (0.5)
Appendicitis	-	1 (0.3)
Brain abscess	-	1 (0.3)
Breast abscess	-	1 (0.3)
Candidiasis	-	3 (0.8)
Cervicitis	-	1 (0.3)
Chlamydial infection	-	1 (0.3)
Cystitis	-	1 (0.3)
Ear infection	-	1 (0.3)
Folliculitis	-	2 (0.5)
Gastroenteritis	-	1 (0.3)
Gastroenteritis shigella	-	1 (0.3)
Groin abscess	-	1 (0.3)

Impetigo	-	1 (0.3)
Mastitis	-	1 (0.3)
Pilonidal cyst	-	2 (0.5)
Pneumonia mycoplasmal	-	1 (0.3)
Pyelonephritis acute	-	1 (0.3)
Tonsillitis	-	3 (0.8)
Trichomoniasis	-	2 (0.5)
Vulvitis	-	1 (0.3)
Electric shock	-	1 (0.3)
Human bite	-	1 (0.3)
Joint injury	-	1 (0.3)
Multiple fractures	-	1 (0.3)
Neck injury	-	1 (0.3)
Nerve injury	-	1 (0.3)
Post procedural haemorrhage	-	2 (0.5)
Wrist fracture	-	1 (0.3)
Hepatic enzyme increased	-	1 (0.3)
Dyslipidaemia	-	1 (0.3)
Hypercholesterolaemia	-	1 (0.3)
Arthralgia	-	2 (0.5)
Arthropathy	-	1 (0.3)
Intervertebral disc disorder	-	1 (0.3)
Muscle spasms	-	2 (0.5)
Neck pain	-	1 (0.3)
Rheumatoid arthritis	-	1 (0.3)
Temporomandibular joint syndrome	-	1 (0.3)
Tendonitis	-	2 (0.5)
Benign ovarian tumour	-	1 (0.3)
Fibroadenoma of breast	-	3 (0.8)
Melanocytic naevus	-	1 (0.3)
Paraesthesia	-	1 (0.3)
Abortion complete	-	1 (0.3)
Chorioamnionitis	-	1 (0.3)
Intra-uterine death	-	1 (0.3)
Placenta praevia	-	1 (0.3)
Premature baby	-	1 (0.3)
Premature labour	-	1 (0.3)
Anxiety	-	2 (0.5)
Bipolar disorder	-	2 (0.5)
Suicide attempt	-	2 (0.5)
Hypertonic bladder	-	1 (0.3)
Renal colic	-	1 (0.3)
Bartholinitis	-	1 (0.3)
Ovarian cyst ruptured	-	1 (0.3)
Asthma	-	1 (0.3)
Pharyngolaryngeal pain	-	1 (0.3)
Pneumonitis	-	1 (0.3)
Wisdom teeth removal	-	1 (0.3)
Thrombophlebitis	-	1 (0.3)
Ectopic pregnancy	-	1 (0.3)

† Investigators were instructed to report conditions prompting emergency room visits or physicians' visits that were not related to common diseases.

-: AE absent		
<b>Safety Results:</b> Number (%) of subjects with SAEs from the end of primary study HPV-001 throughout the entire HPV-007 study period (Total cohort)		
<b>Serious adverse event, n (%) [n considered by the investigator to be related to study medication]</b>		
<b>All SAEs</b>	<b>HPV Group N = 393</b>	<b>Placebo Group N = 383</b>
Subjects with any SAE(s), n (%) [n assessed by the investigator as related]	31 (7.9) [0]	39 (10.2) [0]
Colitis	1 (0.3) [0]	1 (0.3) [0]
Gastroesophageal reflux disease	1 (0.3) [0]	0 (0.0) [0]
Cholecystitis acute	1 (0.3) [0]	0 (0.0) [0]
Cholelithiasis	0 (0.0) [0]	2 (0.5) [0]
Abscess limb	1 (0.3) [0]	0 (0.0) [0]
Appendicitis	0 (0.0) [0]	1 (0.3) [0]
Bronchopneumonia	1 (0.3) [0]	0 (0.0) [0]
Groin abscess	0 (0.0) [0]	1 (0.3) [0]
Neurocysticercosis	1 (0.3) [0]	0 (0.0) [0]
Pulmonary tuberculosis	2 (0.5) [0]	1 (0.3) [0]
Pyelonephritis	0 (0.0) [0]	1 (0.3) [0]
Tubo-ovarian abscess	1 (0.3) [0]	0 (0.0) [0]
Anaesthetic complication	1 (0.3) [0]	0 (0.0) [0]
Failed forceps delivery	1 (0.3) [0]	0 (0.0) [0]
Head injury	1 (0.3) [0]	0 (0.0) [0]
Hip fracture	1 (0.3) [0]	0 (0.0) [0]
Incisional hernia	1 (0.3) [0]	0 (0.0) [0]
Multiple fractures	0 (0.0) [0]	1 (0.3) [0]
Post procedural haemorrhage	0 (0.0) [0]	1 (0.3) [0]
Muscle spasms	0 (0.0) [0]	1 (0.3) [0]
Pathological fracture	1 (0.3) [0]	0 (0.0) [0]
Uterine leiomyoma	0 (0.0) [0]	1 (0.3) [0]
Convulsion	1 (0.3) [0]	0 (0.0) [0]
Abortion complete	0 (0.0) [0]	1 (0.3) [0]
Abortion missed	1 (0.3) [0]	2 (0.5) [0]
Abortion spontaneous	6 (1.5) [0]	10 (2.6) [0]
Abortion spontaneous complete	2 (0.5) [0]	0 (0.0) [0]
Abortion spontaneous incomplete	1 (0.3) [0]	2 (0.5) [0]
Chorioamnionitis	0 (0.0) [0]	1 (0.3) [0]
Eclampsia	1 (0.3) [0]	0 (0.0) [0]
Ectopic pregnancy	0 (0.0) [0]	1 (0.3) [0]
Foetal distress syndrome	1 (0.3) [0]	0 (0.0) [0]
Intra-uterine death	0 (0.0) [0]	1 (0.3) [0]
Placenta praevia	0 (0.0) [0]	1 (0.3) [0]
Pre-eclampsia	2 (0.5) [0]	2 (0.5) [0]
Premature baby	0 (0.0) [0]	1 (0.3) [0]
Premature labour	0 (0.0) [0]	1 (0.3) [0]
Stillbirth	1 (0.3) [0]	0 (0.0) [0]
Bipolar disorder	0 (0.0) [0]	1 (0.3) [0]
Depression	1 (0.3) [0]	1 (0.3) [0]
Suicidal ideation	1 (0.3) [0]	0 (0.0) [0]
Suicide attempt	0 (0.0) [0]	2 (0.5) [0]
Renal colic	0 (0.0) [0]	1 (0.3) [0]
Pharyngolaryngeal pain	0 (0.0) [0]	1 (0.3) [0]
Pneumonia aspiration	1 (0.3) [0]	0 (0.0) [0]
Pneumonitis	0 (0.0) [0]	1 (0.3) [0]

<b>Fatal SAEs</b>	<b>HPV Group N = 393</b>	<b>Placebo Group N = 383</b>
Subjects with fatal SAEs, n (%) [n assessed by the investigator as related]	0 (0.0) [0]	0 (0.0) [0]

**Conclusion:**

During this long-term follow-up study, respectively 2 and 47 new cases of HPV-16/18 incident infection were diagnosed in HPV and Placebo groups. For the combined HPV-001/007 analysis, the observed vaccine efficacy against HPV-16 and/or HPV-18 incident infection up to the end of the follow-up period for each subject was 95.3%.

At least one AE was reported by 106 (28.4%) subjects of the HPV Group and 123 (33.3%) subjects of the Placebo Group between the end of the primary study and the end of the follow-up period.

At least one SAE was reported by 31 (7.9%) subjects of the HPV Group and 39 (10.2%) subjects of the Placebo Group between the end of the primary study and the end of the follow-up period; none were assessed by the investigators as related to the study vaccination. No fatal SAEs were reported.

For SAEs reported during HPV-001, please refer to HPV-001 CTRS.

Please refer also to the publications below.

**Publications:**

Harper DM et al. (2006) Sustained efficacy up to 4.5 years of a bivalent L1 virus-like particle vaccine against human papillomavirus types 16 and 18: follow-up from a randomised control trial. *Lancet*. 367(9518):1247-1255.

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Descamps D et al. (2009) Safety of human papillomavirus (HPV)-16/18 AS04-adjuvanted vaccine for cervical cancer prevention: A pooled analysis of 11 clinical trials. *Hum Vaccin*. 5(5):51-59.

David MP et al. (2009) Long-term persistence of anti-HPV-16 and -18 antibodies induced by vaccination with the AS04-adjuvanted cervical cancer vaccine: modeling of sustained antibody responses. *Gynecol Oncol*. 115(3 Suppl):S1-6.

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Ramanakumar AV et al. HPV infection incidence and duration in previously unexposed women. Abstract presented at the 27th International Papillomavirus Conference and Clinical Workshop. Berlin, Germany, 17-21 September 2011.

Schwarz TF et al. (2011) Overview of clinical evidence: Cervarix. *Future Medicine - Human Papillomavirus Vaccines*. 38-50.

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