

諸外国におけるHPVワクチンの 安全性に関する文献等について

米国における4価HPVワクチンの市販後調査による安全性評価（2006～2008）

- VAERSに報告された4価HPVワクチン接種後の有害事象報告を要約し、2006年6月～2008年12月までの間にVAERSに報告された12,424例を解析した。
- 10万接種あたりの報告数は53.9件で、そのうち重篤なものは全体の6.2%を占めていた。失神と静脈血栓症について報告数が多いことが指摘された。

AEFI ^a	No. (%)			Total, No.	Reporting Rate ^c
	Serious Adverse Events	Nonserious Events	qHPV Alone ^b		
Syncope, syncope vasovagal	93 (5)	1803 (95)	1396 (74)	1896	8.2
Local reaction ^d	41 (2)	1700 (98)	1338 (77)	1741	7.5
Dizziness	96 (6)	1476 (94)	1147 (73)	1572	6.8
Nausea	119 (10)	1045 (90)	908 (78)	1164	5.0
Headache	150 (16)	787 (84)	688 (73)	937	4.1
Hypersensitivity reaction ^e	47 (6)	678 (94)	582 (80)	725	3.1
Urticaria	22 (4)	590 (96)	501 (82)	612	2.6
Venous thromboembolic event	39 (69)	17 (31)	55 (98)	56	0.2
Autoimmune disorder	19 (37)	32 (63)	45 (88)	51	0.2
Guillain-Barré syndrome	31 (74)	11 (26)	25 (60)	42	0.2
Anaphylaxis	8 (29)	20 (71)	18 (64)	28	0.1
Death	32 (100)	0	23 (72)	32	0.1
Transverse myelitis	10 (100)	0	10 (100)	10	0.04
Pancreatitis	9 (100)	0	9 (100)	9	0.04
Motor neuron disease	2 (100)	0	2 (100)	2	0.009

出典：Slade BA et al. JAMA. 2009; 302: 750-7.

米国における4価HPVワクチン接種率（2007～12）と安全性評価（MMWR）（2006～13）

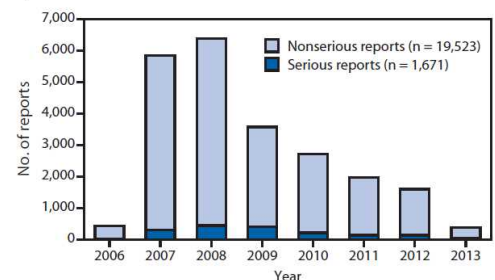
- 2006年からACIPはHPVワクチンを推奨しているが、National Immunization Survey-Teen（NIS-Teen）の接種率モニタリングによれば、1回以上のワクチン接種率は53.0%（2011年）→53.8%（2012年）と横ばいであった。
- また、安全性モニタリングによれば、4価HPVワクチンは安全であることを示している。

TABLE 1. Estimated human papillomavirus (HPV) vaccine coverage among adolescent girls aged 13–17 years, by number of doses — National Immunization Survey–Teen, United States, 2007–2012

Characteristic	Survey year ^a											
	2007		2008		2009		2010		2011		2012	
	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
≥1 dose HPV vaccine [†]	25.1	(22.3–28.1)	37.2	(35.2–39.3) [§]	44.3	(42.4–46.1) [§]	48.7	(46.9–50.5) [§]	53.0	(51.4–54.7) [§]	53.8	(52.0–55.7) [§]
≥2 doses HPV vaccine	16.9	(14.6–19.6)	28.3	(26.4–30.3) [§]	35.8	(34.1–37.6) [§]	40.7	(38.9–42.5) [§]	43.9	(42.3–45.6) [§]	43.4	(41.5–45.2)
≥3 doses HPV vaccine	5.9	(4.4–7.8)	17.9	(16.3–19.6) [§]	26.7	(25.2–28.3) [§]	32.0	(30.3–33.6) [§]	34.8	(33.2–36.4) [§]	33.4	(31.7–35.2)
Unvaccinated girls with ≥1 missed opportunity for HPV vaccine [†]	20.8	(17.6–24.3)	30.8	(28.5–33.2) [§]	52.5	(50.1–55.0) [§]	67.9	(65.5–70.2) [§]	77.7	(75.7–79.6) [§]	84.0	(82.1–85.8) [§]
Potential coverage with ≥1 dose of HPV vaccine if no missed opportunity	40.6	(37.3–44.0)	56.5	(54.4–58.6) [§]	73.5	(71.9–75.1) [§]	83.5	(82.2–84.8) [§]	89.5	(88.5–90.5) [§]	92.6	(91.7–93.5) [§]

Organization	System or review	No. of doses evaluated	Description	Methods	Findings
CDC	Vaccine Safety Datalink [*]	600,559	Large database used for active surveillance and research; safety assessment of seven prespecified health outcomes among female HPV4 vaccine recipients at seven managed-care organizations [†]	Cohort design with weekly sequential analyses of electronic medical data [§]	No statistically significant increase in risk for the outcomes monitored
Merck	Postmarketing commitment to FDA [†]	346,972	General study assessment of HPV4 vaccine after routine administration at two large managed-care organizations	Self-controlled risk interval design, supplemented with medical record review	HPV4 vaccine associated with syncope on the day of vaccination and skin infections ^{**} in the 2 weeks after vaccination; no other vaccine safety signals detected
Merck	Postmarketing commitment FDA ^{††}	346,972	Assessment of 16 prespecified autoimmune conditions after routine use of HPV4 vaccine at two large managed-care organizations	Retrospective cohort using electronic medical data, supplemented with medical record review ^{§§}	No confirmed safety signals for the outcomes monitored

FIGURE. Number of serious and nonserious reports of adverse events after administration of quadrivalent human papillomavirus (HPV4) vaccine in females, by year — Vaccine Adverse Event Reporting System, United States, June 2006–March 2013*



* Total number of reports (serious and nonserious) = 21,194. In the Vaccine Adverse Event Reporting System, reports are classified as serious if the submitter reports one or more of the following: hospitalization, prolongation of an existing hospitalization, permanent disability, life-threatening illness, or death.

出典：Stokely S et al. MMWR Recomm Rep. 2014; 63: 591-595.

