

Supplementary table 8: Breakdown of adverse events reported during the study

Adverse event	qHPV		Placebo		Total	
	All AE	Vaccine-related AE‡	All AE	Vaccine-related AE‡	All AE	Vaccine-related AE‡
Total	251 (53.7%)	115 (45.8%)	216 (46.3%)	82 (38.0%)	467 (100%)	197 (42.2%)
Injection-site related*	49 (19.5%)	49 (100%)	13 (6.0%)	13 (100%)	62 (13.3%)	62 (100%)
- Pain	37 (14.7%)	37 (100%)	10 (4.6%)	10 (100%)	47 (10.0%)	47 (100%)
- Erythema	6 (2.4%)	6 (100%)	3 (1.4%)	3 (100%)	9 (1.9%)	9 (100%)
- Swelling	6 (2.4%)	6 (100%)	0 (0%)	-	6 (1.3%)	6 (100%)
Systemic/per organ system	202 (80.5%)	96 (47.5%)	203 (94.0%)	89 (43.8%)	405 (86.7%)	185 (45.7%)
- Cardiac disorders	4 (1.6%)	1 (25%)	1 (0.5%)	0 (0%)	5 (1.1%)	1 (20%)
- Ear disorders	0 (0%)	-	3 (1.4%)	0 (0%)	3 (0.6%)	0 (0%)
- Endocrine disorders	0 (0%)	-	1 (0.5%)	0 (0%)	1 (0.2%)	0 (0%)
- Gastrointestinal disorders	22 (8.8%)	6 (27.2%)	27 (12.5%)	5 (18.5%)	49 (10.5%)	11 (22.4%)
- General disorders	29 (11.5%)	23 (79.3%)	47 (21.8%)	40 (85.1%)	76 (16.3%)	63 (82.9%)
- Infections and infestations	46 (18.3%)	9 (19.6%)	54 (25.0%)	9 (16.7%)	100 (1.4%)	18 (18.0%)
- Injury	4 (1.6%)	0 (0%)	2 (0.9%)	0 (0%)	6 (1.3%)	0 (0%)
- Musculoskeletal disorders	19 (7.6%)	15 (79.0%)	8 (3.7%)	3 (37.5%)	27 (5.8%)	18 (66.7%)
- Nervous system disorders	32 (12.7%)	30 (93.8%)	26 (12.0%)	23 (88.5%)	58 (12.4%)	53 (91.4%)
- Psychiatric disorders	3 (1.2%)	1 (33.3%)	4 (1.9%)	2 (50.0%)	7 (1.5%)	3 (42.9%)
- Renal and urinary disorders	3 (1.2%)	0 (0%)	9 (4.2%)	2 (22.2%)	12 (2.6%)	2 (16.7%)
- Respiratory disorders	15 (6.0%)	3 (20.0%)	7 (3.2%)	2 (28.6%)	22 (4.7%)	5 (22.7%)
- Skin and subcutaneous disorders	25 (10.0%)	8 (32.0%)	13 (6.0%)	3 (23.1%)	38 (8.1%)	11 (28.9%)
- Vascular disorders	0 (0%)	-	1 (0.5%)	0 (0%)	1 (0.2%)	0 (0%)
AE grade[^]						
- grade 1	193	138	155	97 (62.6%)	348	235
- grade 2	(76.9%)	(71.5%)	(71.8%)	2 (4.3%)	(74.5%)	(67.5%)
- grade 3	52 (20.7%)	7 (13.5%)	46 (21.3%)	3 (23.1%)	98 (21.0%)	9 (9.2%)
- grade 4	5 (2.0%)	0 (0%)	13 (6.0%)	0 (0%)	18 (3.9%)	3 (16.7%)
- grade 5	1 (0.4%)	0 (0%)	2 (0.9%)	0 (0%)	3 (0.6%)	0 (0%)
	0 (0%)	0 (0%)	0 (0%)		0 (0%)	0 (0%)
Serious[^]	3 (1.2%) [§]	0 (0%)	5 (2.3) ^{&}	0 (0)	9 (1.9%) [@]	0 (0%)
- Death	0 (0%)	0 (0%)	0 (0)	0 (0)	0 (0%)	0 (0%)

Data are n (%) or n/N (%). Abbreviations: AE, adverse event; SAE, serious adverse event; qHPV, quadrivalent

human papillomavirus vaccine

* pain, erythema, swelling during the seven days following vaccination; all injection site adverse experiences were considered vaccine-related.

‡ Vaccine-related adverse events were those determined by the investigator to be possibly, probably, or definitely related to the vaccine.

[§] The three serious adverse events in the qHPV group were: renal insufficiency due to insufficient intake; small myocardial infarction; short-term psychosis after substance abuse

[&] The five serious adverse events in the placebo group were: nephrolithiasis (one participant, two episodes), hip fracture; hepatic encephalopathy and portal vein thrombosis; wound infection after accident in gym

[@] One participant experienced a serious adverse event (tibia fracture) after recruitment but before randomisation