

Supplementary Table S1

Immunogenicity and Safety of Polio Vaccines in Infants: A Systematic Review of Randomized Clinical Trials

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Vaccine	Schedule	Number of doses (M)	Form	Dose	Sample size	Immunogenicity																Rate of complications	Reference
						Serotype I				Serotype II				Serotype III									
						Before	After	GMR	SR	Before	After	GMR	SR	Before	After	GMR	SR						
IPV	Primary	3 (6-10-14W)	IM	1	206	14.4	3727.7	258.9	100	53.7	3759.2	70	98.5	11.9	4531.1	380.8	100	N/D	10.1016/S1473-3099(17)30177-9				
IPV	Primary	3 (2-3-4)	IM	1	277	11.81	561.04	47.5	96.75	9.38	196.96	20.99	86.64	8.08	1044.13	129.2	96.75	Pneumonia -15, Bronchitis -1, Infectious diarrhoea -1	10.1016/j.jid.2023.01.020				
IPV	Primary	3 (2-3-4)	IM	1	306	8.7	485.1	55.8	100	6.5	234.3	36.1	100	5.2	824.3	158.5	100	Diarrhoea -1, Herpes zoster -1, Hydrocephalus -1	10.1016/j.vaccine.2016.02.010				
IPV	Primary	3 (2-3-4/3-4-5)	IM	1	82	10.43	301.42	28.9	91.46	6.95	136.94	19.7	85.37	5.12	370.52	72.4	97.56	Fever -188, Irritability -16, Somnolence3, Vomit -7, Diarrhea -42, Redness on injection site -3	10.1080/21645515.2017.1288769				
IPV	Primary	3 (6-10-14W)	N/D	1	194	12.67	307.74	24.3	96.4	11.64	246.49	21.2	94.8	8.48	768.62	90.6	97.9	Pain/tenderness -54, Erythema/redness -13, Induration/swelling -7, Fever -10, Irritability/restlessness -81, Drowsiness/sleepiness -51, Loss of appetite -29, Diarrhea -29, Vomiting -27, Rash -18	10.1093/infdis/jaa770				
IPV + other vaccines	Primary	3 (2-3-4/3-4-5)	INJ	1	106	18.6	693.6	37.3	93.4	6.9	175.5	25.4	91.5	5.7	559.2	98.1	100	Redness -15, Swelling -2, Pain -1, Induration -3, Rash -1, Pruritus -1, Fever -46, More crying -28 Diarrhea -15, Cough -11, Vomiting -9, Activity decline -11, Inappetence -5	10.1080/21645515.2020.1745593				
IPV + other vaccines	Primary	3 (2-4-6)	IM	1	341	10.4	4775	459.1	100	35.7	6934	194.2	100	8.1	4785	590.7	100	Erythema -44, Swelling -39, Crying -307, Pyrexia -282, Nasopharyngitis -248, Tonsillitis -190, Irritability -206, Somnolence -129, Decreased appetite -110, Vomiting -83, Fever -45, Dermatitis diaper -43, Rhinitis -45, Microcytic anaemia -37, Acarodermatitis -30, Bronchiolitis -33, Diarrhoea -31, Conjunctivitis -25, Gastroenteritis -31	10.1016/j.vaccine.2020.02.066				
IPV-AI	Primary	3 (6-10-14W)	IM	/3	205	13	3310.2	254.6	99	47.4	4495.1	94.8	97.6	10.3	4229.7	410.7	99.5	N/D	10.1016/S1473-3099(17)30177-9				
IPV-AI	Primary	3 (6-10-14W)	IM	/5	205	10.4	2221.1	213.6	99.5	46.4	3151.8	67.9	96.1	10.3	3120	302.9	99	N/D	10.1016/S1473-3099(17)30177-9				
IPV-AI	Primary	3 (6-10-14W)	IM	/10	204	12.7	1584.6	124.8	98.5	51.6	2410.8	46.7	94.6	11.2	2069	184.7	99.5	N/D	10.1016/S1473-3099(17)30177-9				
IPV-AI + other vaccines	Primary	3 (2-4-6)	IM	/10	355	11.9	809.3	68	96.1	34	3256	95.8	100	8.2	786.9	95.96	99.2	Erythema -55, Swelling -41, Crying -295, Pyrexia -259, Nasopharyngitis -254, Tonsillitis -206, Irritability -192, Somnolence -148, Decreased appetite -113, Vomiting -77, Temperature -41, Dermatitis diaper -38, Rhinitis -33, Microcytic anaemia -29, Acarodermatitis -Bronchiolitis -27, Diarrhoea -20, Conjunctivitis -25, Gastroenteritis -2025,	10.1016/j.vaccine.2020.02.066				
siPV	Primary	3 (2-3-4)	IM	1	195	7.93	4476.66	564.5	100	8.47	510.18	60.23	99.49	5.17	1091.66	211.2	100	Fever -49, Rash -3, Cough -11, Diarrhea -2, Running nose -6, Redness -2, Induration -1, Swelling -1	10.1016/j.vaccine.2020.07.042				
siPV	Primary	3 (2-3-4)	IM	1	810	13.61	2716.97	199.6	98	9.36	459.71	49.1	94.07	7.09	1998.23	281.8	98.77	Pneumonia -28, Bronchitis -11, Upper respiratory tract infection -5, Laryngitis -1, Conjunctivitis -1, Intracranial infection -1, Chest wall abscess -1, Mycoplasma infection -1, Orchitis -1, Herpangina -1, Acute pulmonary edema -1, Dyspepsia -1	10.1016/j.jid.2023.01.020				
siPV	Primary	3 (2-3-4 или 4-5-6)	IM	1	1096	13.02	3287.32	253.1	99.8	8.45	231.61	27.39	98.9	5.76	934.816	162.36	99.4	Redness -193, Pain -232, Induration -100, Swelling -67, Fever -2107, Diarrhea -445, Cough -511, Vomiting -427, Loss of appetite -722, Drowsiness -906, Irritability -736, Abnormal crying -1161	10.1016/j.vaccine.2021.01.027				
siPV	Primary	3 (2-3-4)	IM	1	182	5.68	426.47	75.08	95.05	5.56	170.31	30.6	92.31	4.34	269.09	62	98.9	Fever -24, Irritability -10, Vomit -9, Diarrhea -10, Drowsiness -6, Allergic -2, Pain -5, Induration -3, Redness -27, Swelling -1	10.3389/fimmu.2022.905634				
siPV	Primary	3 (6-10-14W)	N/D	1	852	12.79	1016.89	79.5	97.4	13.84	732.48	52.9	97.4	10.13	995.8	98.3	95.8	Pain/tenderness -332, Erythema/redness -48, Induration/swelling -38, Fever -51, Irritability/restlessness -403, Drowsiness/sleepiness -258, Loss of appetite -123, Diarrhea -126, Vomiting -135, Rash -61	10.1093/infdis/jaa770				
siPV	One dose	1 (2)	IM	1	271	12.99	3027.5	233.1	97.79	9.6	505.14	52.6	92.99	7.39	2215.44	299.8	99.26	Pneumonia -9, Bronchitis -1, Upper respiratory tract infection -1, Acute pulmonary edema -1, Intussusception -1, Diarrhea -1, Gastritis -1, Capillaritis -1	10.1016/j.jid.2023.01.020				
siPV + other vaccines	Primary	3 (2-3-4/3-4-5)	IM	1	103	21.1	3894	184.5	100	6.9	259.4	37.6	95.1	6.5	556.9	85.7	95.1	Redness -19, Induration -1, Fever -57, More crying -25, Diarrhea -14, Cough -19, Vomiting -11, Activity decline -8, Inappetence -5	10.1080/21645515.2020.1745593				
siPV + other vaccines	Primary	3 (2-3-4/3-4-5)	IM	LD	108	17.6	3609.9	205.1	99.1	8.4	691.2	82.3	93.5	6.2	908.2	146.5	95.4	Redness -26, Swelling -8, Pain -6, Induration -9, Rash -3, Pruritus -1, Fever -60, More crying -27, Diarrhea -16, Cough -16, Vomiting -12, Activity decline -4, Inappetence -7	10.1080/21645515.2020.1745593				
siPV + other vaccines	Primary	3 (2-3-4/3-4-5)	IM	MD	105	17.5	3694.9	211.1	100	6.9	801.7	116.2	97.1	5.4	1030.1	190.8	98.1	Redness -28, Swelling -8, Pain -8, Induration -4, Rash -2, Fever -60, More crying -35, Diarrhea -10, Cough -18, Vomiting -9, Activity decline -5, Inappetence -5	10.1080/21645515.2020.1745593				
siPV + other vaccines	Primary	3 (2-3-4/3-4-5)	IM	HD	106	17.4	5252.9	301.9	99.1	7	890.2	127.2	98.1	5.7	1347.7	236.4	98.1	Redness -35, Swelling -6, Pain -9, Induration -6, Rash -1, Pruritus -1, Fever -56, More crying -34 Diarrhea -19, Cough -18, Vomiting -12, Activity decline -11, Inappetence -10	10.1080/21645515.2020.1745593				
nOPV2	Primary	2 (0-1)	PerOs	1	219	29.3	4.4	0.15		56.5	1180	20.9	90.3	15.1	2.5	0.16	N/D	Nasopharyngitis -27, Upper respiratory tract infection -24, Respiratory tract infection -23, Pneumonia -9, Omphalitis -7, Ophthalmia neonatorum -6, Tinea capitis -4, Diarrhoea -2, Abdominal distension -2, Pyrexia -6, Dermatitis contact -2	10.1016/S0140-6736(22)02397-2				
	Boost	1	PerOs	1	220	29.3	10.3	0.35		56.5	146.8	2.59	45.7	15.1	5.7	0.37	N/D		10.1016/S0140-6736(23)02844-1				
nOPV2	Boost	2	PerOs	1	650	N/D	N/D	N/D	N/D	26.7	654.9	24.6	66.7	N/D	N/D	N/D	N/D		10.1016/S0140-6736(23)02844-1				
nOPV2 + other vaccines	Primary	2 (1 week)	PerOs	1	1946	N/D	N/D	N/D	N/D	26.7	277.9	10.4	49	N/D	N/D	N/D	N/D		10.1016/S0140-6736(23)02844-1				
nOPV2 + other vaccines	Primary	2 (2 week)	PerOs	1	289	N/D	N/D	N/D	N/D	10.7	1232	115.1	95.2	N/D	N/D	N/D	N/D	Abnormal crying -88, Diarrhoea -45, Drowsiness -272, Fever -139, Irritability -33, Loss of appetite -36, Vomiting -45	10.1016/S1473-3099(23)00519-4				
nOPV2 + other vaccines	Primary	2 (2 week)	PerOs	1	293	N/D	N/D	N/D	N/D	11.5	1726	150.1	96.2	N/D	N/D	N/D	N/D	Abnormal crying -90, Diarrhoea -48, Drowsiness -39, Fever -144, Irritability -45, Loss of appetite -48, Vomiting -75	10.1016/S1473-3099(23)00519-4				
nOPV2 + other vaccines	Primary	2 (3 week)	PerOs	1	290	N/D	N/D	N/D	N/D	10.2	2328	228.2	97.2	N/D	N/D	N/D	N/D	Abnormal crying -82, Diarrhoea -39, Drowsiness -36, Fever -138, Irritability -42, Loss of appetite -39, Vomiting -64, Fatal AE (3 months after the 2 dose): septic shock	10.1016/S1473-3099(23)00519-4				
bOPV2	Boost	2	PerOs	1	96	N/D	N/D	N/D	N/D	29.3	33.5	1.143	26.3	N/D	N/D	N/D	N/D		10.1016/S0140-6736(23)02844-1				
	Boost	1	PerOs	1	326	N/D	N/D	N/D	N/D	29.3	24.8	0.846	13.8	N/D	N/D	N/D	N/D		10.1016/S0140-6736(23)02844-1				
tOPV	Primary	3 (2-3-4)	PerOs	1	296	7.8	2817	361.2	100	7.2	468.5	65.1	100	5.2	423.4	81.4	98.3	Bronchopneumonia -1, Epilepsy -1, Upper respiratory tract infection -1, Bronchitis -1, Enteritis -1 In one child - bronchopneumonia with abdominal distension, cardiac failure and respiratory failure	10.1016/j.vaccine.2016.02.010				
tOPV	Primary	3 (2-3-4/3-4-5)	PerOs	1	78	9.48	1459.89	153.9	96.15	7.45	271.39	36.4	97.44	5.04	477.11	94.7	100	Fever -170, Irritability -15, Somnolence -3, Vomit -3, Diarrhea -46, Allergic reaction -2	10.1080/21645515.2017.1288769				
IPV-tOPV-tOPV	Primary	3 (2-3-4/3-4-5)	IM/PerOs	1	86	8.27	1100.89	133.1	97.67	6.66	279.19	41.9	95.35	4.87	480.91	98.7	95.35	Fever -186, Irrit					