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# THE LANCET

## **Supplementary appendix**

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

Supplement to: Manaseki-Holland S, Maroof Z, Bruce J, et al. Effect on the incidence of pneumonia of vitamin D supplementation by quarterly bolus dose to infants in Kabul: a randomised controlled superiority trial. *Lancet* 2012; published online April 10. DOI:10.1016/S0140-6736(11)61650-4.

Web only tables:

**Table 1: Incidence rate of first or the only episode of pneumonia per protocol analysis.**

Type of Pneumonia	<u>Vitamin D</u>				<u>Placebo</u>				Incidence		P- Value
	Episode	Person years at risk	Incidence Rate	95% CI	Episode	Person years at risk	Incidence Rate	95% CI	Rate Ratio	95% CI	
<b>x-ray confirmed</b>											
All Pneumonia	230	1620	0.14	0.12 - 0.16	219	1625	0.13	0.12- 0.15	1.06	0.88 – 1.27	0.54
Simple Pneumonia	201	1650	0.12	0.11 - 0.14	195	1652	0.11	0.10 - 0.14	1.03	0.85 – 1.26	0.71
Severe Pneumonia	44	1787	0.024	0.018 - 0.033	36	1794	0.020	0.014 - 0.028	1.23	0.79 – 1.91	0.35
Very Severe diseases	12	1819	0.006	0.003 - 0.012	9	1815	0.005	0.002 - 0.009	1.33	0.56 – 3.17	0.51
<b>x-ray confirmed &amp; non-confirmed</b>											
All Pneumonia	915	910	1.01	0.94 - 1.07	922	895	1.03	0.96 - 1.09	0.98	0.89 – 1.07	0.68
Simple Pneumonia	902	949	0.95	0.89 - 1.01	885	947	0.93	0.87 – 0.99	1.02	0.93 – 1.12	0.67
Severe Pneumonia	148	1678	0.09	0.07 - 0.10	135	1697	0.08	0.07 - 0.09	1.11	0.88 – 1.40	0.38
Very Severe diseases	135	1724	0.08	0.06 - 0.09	155	1704	0.09	0.07 - 0.11	0.86	0.68 – 1.08	0.21

**Table 2: Person-time at risk and incidence rate of repeat episodes of pneumonia from all sources (home visit, OPD and IPD) per protocol analysis**

Type of Pneumonia	<u>Vitamin D</u>				<u>Placebo</u>				Incidence Rate Ratio	95% CI	P-Value
	Episode	Person years at risk	Incidence Rate	95% CI	Episode	Person years at risk	Incidence Rate	95% CI			
<b>x-ray confirmed</b>											
All Pneumonia	125	1828	0.07	0.06 - 0.08	74	1824	0.04	0.03 - 0.05	1.69	1.27 – 2.25	<0.0001
Simple Pneumonia	88	1828	0.05	0.04-0.06	47	1824	0.03	0.02 - 0.04	1.87	1.31 – 2.67	<0.0001
Severe Pneumonia	10	1828	0.005	0.003 - 0.010	6	1824	0.003	0.001 - 0.007	1.67	0.61 – 4.59	0.31
Very Severe diseases	0	1828	0	n/a	0	1824	0	n/a	n/a	n/a	n/a
<b>x-ray confirmed &amp; non-confirmed</b>											
All Pneumonia	2134	1826	1.17	1.12 – 1.22	1977	1822	1.08	1.04 – 1.13	1.08	1.01 – 1.14	0.02
Simple Pneumonia	1779	1826	0.97	0.93 – 1.02	1645	1822	0.90	0.86 – 0.94	1.08	1.01 – 1.15	0.02
Severe Pneumonia	44	1826	0.024	0.017 – 0.032	42	1822	0.023	0.017 – 0.031	1.04	0.68 – 1.59	0.84
Very Severe diseases	41	1826	0.022	0.016 – 0.030	37	1822	0.020	0.014 – 0.028	1.10	0.71 – 1.72	0.66

**Table 3: Serum levels of 25-hydroxyvitamin D measured at different stages in samples of study children.**

Timing of sample to supplementation	Month of sample	Intervention 25(OH)D serum concentrations		Control serum 25(OH)D concentrations	
		Mean nmol/L	95% CI nmol/L	Mean nmol/L	95% CI nmol/L
1 week after first dose n=139	Nov-Dec 2007	129.5***	(111.1-148.0)	42.9#	(38.7-47.0)
1.5 months after first dose n=133	Dec-Jan 2008	76.3***	(64.5-88.2)	33.0	(28.0-38.0)
3 months after dose 1 and just before dose 2 n=122	Feb-Mar 2008	55.5*	(46.0-65.0)	39.6	(28.5-50.7)
2 weeks after 3 <sup>rd</sup> dose n=141	May-Jun 2008	104.9***	(89.8-120.0)	52.9	(45.3-60.6)
4 months after dose 6 n=101	Jul-Aug 2009	51.9	(49.0-54.9)	50.1	(45.0-55.1)

# This represents the baseline 25-hydroxyvitamin D levels in the study population

\*\*\* Statistically different between the groups p<0.001

\* Statistically different between the groups p=0.06