

Effect of preterm birth on longitudinal lung spirometry in school age children and adolescents.

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ONLINE DATA SUPPLEMENT

Methods

ALSPAC

ALSPAC is a longitudinal birth cohort study of 14,541 women recruited during pregnancy, (with estimated dates of delivery between April 1991 and December 1992), and their 14,062 surviving offspring; data on the triplets and one set of quadruplet children were not made available, leaving 14049 live births.

Perinatal data

Perinatal data on respiratory management, including use of surfactant, mechanical ventilation or oxygen therapy, were extracted from the hospital records by trained midwives using a standard proforma for all deaths and discharges for all infants admitted to a neonatal unit or other hospital care during the first 4 weeks of life. We therefore assumed that any infant without a neonatal questionnaire was not admitted to hospital for medical care during the first four weeks of life.

Bronchial Challenge

The challenge ended when the maximum dose was reached (non-responders to the challenge), or when FEV₁ fell by 20% or more from the baseline reading (responders to the challenge).

Table E1 – Mean and SD of z-scores of lung function measures at 8-9 and 14-17 years of age for ventilated and not ventilated children adjusted for age, gender and height, unadjusted for maternal smoking in pregnancy and social status.

	Ventilated n=50		Non-ventilated n=7		25-32 weeks 8-9 years Difference and 95% CI (unadjusted)	p-value for unadjusted analysis
	Mean	SD	Mean	SD		
	FEV₁	-0.583	0.872	-0.282	0.920	
FVC	-0.234	0.971	-0.626	0.629	0.393 (-0.367,1.152)	0.305
FEF₂₅₋₇₅	-0.748	0.794	0.134	1.147	-0.882 (-1.561,-0.203)	0.012

	Ventilated n=30		Non-ventilated n=7		25-32 weeks 14-17 years Difference and 95% CI (unadjusted)	p-value for unadjusted analysis
	Mean	SD	Mean	SD		
	FEV₁	-0.239	0.873	0.047	0.773	
FVC	-0.178	1.109	-0.267	0.878	0.090 (-0.825, 1.004)	0.843
FEF₂₅₋₇₅	-0.534	0.946	0.032	0.521	-0.565 (-1.322, 0.191)	0.138

	Ventilated n=14		Non-ventilated n=46		33-34 weeks 8-9 years Difference and 95% CI (unadjusted)	p-value for unadjusted analysis
	Mean	SD	Mean	SD		
	FEV₁	-0.888	1.136	-0.400	1.144	
FVC	-0.472	1.065	-0.273	1.057	-0.200 (-0.847, 0.447)	0.539
FEF₂₅₋₇₅	-0.770	1.125	-0.360	1.030	-0.409 (-1.052, 0.234)	0.208

	Ventilated n=9		Non-ventilated n=24		33-34 weeks 14-17 years Difference and 95% CI (unadjusted)	p-value for unadjusted analysis
	Mean	SD	Mean	SD		
	FEV₁	-0.645	1.147	0.171	1.089	
FVC	-0.079	0.922	0.270	0.950	-0.349 (-1.101, 0.403)	0.351
FEF₂₅₋₇₅	-1.024	1.079	-1.089	1.033	-0.935 (-1.768, -0.102)	0.029

There was missing data for some of the variables reported.

