

Corrections

Pike K, Brocklehurst P, Jones D, *et al.* Outcomes at 7 years for babies who developed neonatal necrotising enterocolitis: the ORACLE Children Study (*Arch Dis Child Fetal Neonatal Ed* 2012;97:F318-22). This paper was published with an incorrect doi. It should be doi:10.1136/archdischild-2011-300244.

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Appendix A – Details of adjusted models

Details of confounders which are adjusted for are given below:

N.B. For birth mode the spontaneous vaginal birth group is the comparison group

Death before discharge

	Method 1		Method 2		Method 3	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Maternal age – years					0.97	0.94 1.00
Gestation at birth – days	0.92	0.92 0.93	0.92	0.92 0.93	0.93	0.92 0.94
Birthweight for gestation score	0.68	0.57 0.81	0.68	0.57 0.81	0.62	0.51 0.75
Sex – males	1.60	1.18 2.18	1.60	1.18 2.18	1.63	1.16 2.31
Steroid use	0.45	0.30 0.68	0.45	0.30 0.68	0.41	0.25 0.67
Birth mode – caesarean section	1.92	1.38 2.67	1.92	1.38 2.67	1.81	1.25 2.64
Birth mode – vaginal breech	2.08	1.32 3.27	2.08	1.32 3.27	2.53	1.50 4.26
Ventilation					21.52	9.55 48.51
Oxygenation at 28 days					0.06	0.04 0.10
Abnormal cerebral ultrasound					2.41	1.57 3.69

Functional Impairment

Any functional impairment

	Method 1		Method 2		Method 3	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Maternal age – years	0.98	0.97 0.99	0.98	0.97 0.99	0.98	0.97 0.99
Gestation at birth – days	0.99	0.99 1.00	1.00	0.99 1.00		
Birthweight for gestation score	0.91	0.87 0.96	0.92	0.87 0.96	0.92	0.87 0.97
Sex – males	1.31	1.18 1.46	1.31	1.18 1.46	1.31	1.18 1.45
White	0.77	0.63 0.95	0.77	0.63 0.95	0.78	0.63 0.96
Home owner	0.61	0.55 0.69	0.61	0.55 0.69	0.61	0.55 0.69
PROM	0.88	0.79 0.99	0.89	0.79 1.00		
Positive blood culture			1.42	1.08 1.88		
Ventilated					1.58	1.36 1.85
Abnormal cerebral ultrasound					1.95	1.35 2.81

Mild functional impairment

	Method 1		Method 2		Method 3	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Maternal age – years	0.98	0.97 1.00	0.98	0.97 1.00	0.98	0.97 1.00
Gestation at birth – days	1.00	0.99 1.00	1.00	0.99 1.00		
Sex – males	1.18	1.04 1.33	1.18	1.04 1.33	1.17	1.04 1.33
Home owner	0.72	0.63 0.82	0.72	0.63 0.82	0.72	0.63 0.82
White	0.76	0.60 0.97	0.76	0.60 0.97	0.76	0.60 0.97
Ventilated					1.41	1.18 1.69

Moderate functional impairment

	Method 1		Method 2		Method 3	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Maternal age – years	0.96	0.95 0.98	0.96	0.95 0.98	0.96	0.95 0.98
Gestation at birth – days	0.99	0.99 1.00	1.00	0.99 1.00		
Birthweight for gestation score	0.88	0.81 0.96	0.88	0.81 0.96	0.89	0.81 0.96
Sex - males	1.47	1.24 1.74	1.47	1.24 1.74	1.46	1.23 1.72
Home owner	0.52	0.44 0.62	0.52	0.43 0.62	0.53	0.44 0.63
Positive blood culture			1.52	1.01 2.29		
Ventilated					1.89	1.52 2.36

Severe functional impairment

	Method 1		Method 2		Method 3	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Maternal age – years	0.97	0.95 0.99	0.97	0.95 0.99	0.97	0.95 0.99
Gestation at birth – days	0.99	0.99 0.99	0.99	0.99 1.00		
Birthweight for gestation score	0.84	0.75 0.94	0.84	0.75 0.94	0.87	0.77 0.97
Sex – males	1.69	1.35 2.12	1.68	1.34 2.10	1.70	1.36 2.14
Home owner	0.48	0.38 0.60	0.47	0.37 0.60	0.47	0.37 0.59
Birthmode – forceps/ventouse	0.46	0.27 0.80	0.47	0.27 0.82	0.48	0.28 0.84
PROM	0.74	0.58 0.94	0.75	0.59 0.95		
Positive blood culture			1.99	1.24 3.18		
Ventilated					1.60	1.12 2.28
Oxygenation at 28 days					1.59	1.00 2.51
Abnormal cerebral ultrasound					5.37	3.26 8.86

Three or more abnormal attributes

	Method 1		Method 2		Method 3	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Gestation at birth - days	0.99	0.98 0.99	0.99	0.99 0.99		
Birthweight for gestation score	0.87	0.79 0.96	0.88	0.80 0.96	0.88	0.81 0.97
Sex – males	1.63	1.35 1.96	1.64	1.36 1.98	1.62	1.34 1.96
Home owner	0.51	0.42 0.61	0.51	0.42 0.61	0.50	0.41 0.60
Steroid use	1.48	1.14 1.92	1.48	1.14 1.93	1.47	1.13 1.91
Antibiotic use postnatally			1.42	1.14 1.77	1.42	1.14 1.78
White	0.71	0.52 0.98	0.72	0.52 0.99		
PROM	0.71	0.58 0.86	0.70	0.57 0.85	0.75	0.62 0.91
Positive blood culture			1.66	1.14 2.41		
Ventilated					2.24	1.77 2.83
Abnormal cerebral ultrasound					4.30	2.89 6.42

Behaviour

Emotional symptoms

	Method 1		Method 2		Method 3	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Gestation at birth - days	1.00	0.99 1.00	1.00	0.99 1.00		
Birthweight for gestation score	0.91	0.86 0.98	0.91	0.86 0.98	0.92	0.86 0.98
Home owner	0.52	0.46 0.59	0.52	0.46 0.59	0.52	0.46 0.59
Multiple births	0.65	0.52 0.82	0.65	0.52 0.82	0.66	0.53 0.83
PROM	0.77	0.67 0.89	0.77	0.67 0.89	0.81	0.71 0.92
Ventilated					1.51	1.26 1.81
Abnormal cerebral ultrasound					1.54	1.03 2.29

Conduct problems

	Method 1		Method 2		Method 3	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Maternal age – years	0.97	0.96 0.98	0.97	0.96 0.98	0.97	0.96 0.98
Birthweight for gestation score	0.90	0.85 0.96	0.90	0.85 0.96	0.90	0.85 0.96
Home owner	0.51	0.45 0.57	0.51	0.45 0.57	0.50	0.45 0.57
Sex - male	1.41	1.26 1.59	1.41	1.26 1.59	1.41	1.26 1.58
Multiple births	0.82	0.68 1.00	0.82	0.68 1.00	0.80	0.66 0.97
Oxygenation at 28 days					1.42	1.14 1.78

Hyperactivity

	Method 1		Method 2		Method 3	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Maternal age – years	0.97	0.96 0.98	0.97	0.96 0.98	0.97	0.96 0.98
Gestation at birth - days	0.99	0.99 1.00	1.00	0.99 1.00		
Birthweight for gestation score	0.92	0.87 0.98	0.93	0.87 0.99	0.94	0.89 1.00
Sex – males	2.02	1.79 2.27	2.03	1.80 2.28	2.03	1.80 2.29
Home owner	0.67	0.59 0.76	0.67	0.59 0.76	0.67	0.59 0.75
Multiple births	0.65	0.53 0.80	0.65	0.53 0.80	0.68	0.55 0.83
Maternal antibiotics postnatally			1.17	1.00 1.37	1.17	1.00 1.36
Steroids	1.23	1.05 1.42	1.23	1.06 1.43	1.25	1.08 1.45
PROM	0.87	0.76 0.99	0.86	0.76 0.99		
Positive blood culture			1.53	1.14 2.05		
Oxygenation at 28 days					2.10	1.69 2.62

Peer problems

	Method 1			Method 2			Method 3		
	OR	(95% CI)		OR	(95% CI)		OR	(95% CI)	
Birthweight for gestation score	0.86	0.80	0.91	0.86	0.81	0.91	0.85	0.80	0.91
Sex - males	1.20	1.07	1.36	1.20	1.06	1.35	1.20	1.06	1.35
Multiple births	0.59	0.48	0.73	0.58	0.47	0.72	0.57	0.46	0.71
Home owner	0.56	0.49	0.63	0.56	0.49	0.63	0.55	0.49	0.62
White	0.60	0.48	0.75	0.60	0.48	0.75	0.60	0.48	0.75
Steroids	1.18	1.01	1.38	1.17	1.01	1.37			
PROM	0.81	0.72	0.91	0.79	0.70	0.90	0.77	0.69	0.87
Positive blood culture				1.50	1.12	2.02			
Surfactant use							1.36	1.12	1.66
Abnormal cerebral ultrasound							1.67	1.13	2.45

Prosocial behaviour

	Method 1			Method 2			Method 3		
	OR	(95% CI)		OR	(95% CI)		OR	(95% CI)	
Sex - males	2.25	1.83	2.78	2.25	1.83	2.78	2.25	1.82	2.78
Home owner	0.69	0.57	0.84	0.69	0.57	0.84	0.69	0.57	0.83
White	0.66	0.47	0.93	0.66	0.47	0.93	0.66	0.47	0.93
Abnormal cerebral ultrasound							2.16	1.30	3.58

Total difficulties

	Method 1			Method 2			Method 3		
	OR	(95% CI)		OR	(95% CI)		OR	(95% CI)	
Maternal age – years	0.97	0.96	0.99	0.97	0.96	0.99	0.97	0.96	0.99
Gestation at birth - days	1.00	0.99	1.00	1.00	0.99	1.00			
Birthweight for gestation score	0.87	0.81	0.93	0.87	0.82	0.93	0.88	0.82	0.94
Home owner	0.50	0.44	0.57	0.50	0.44	0.57	0.50	0.44	0.57
Sex - males	1.62	1.43	1.83	1.62	1.42	1.83	1.61	1.42	1.82
Multiple births	0.48	0.38	0.61	0.48	0.38	0.61	0.48	0.38	0.61
Birth mode – vaginal breech	1.62	1.16	2.26	1.60	1.14	2.23	1.55	1.11	2.17
Steroids	1.21	1.03	1.42	1.21	1.03	1.42	1.21	1.03	1.42
Positive blood culture				1.54	1.13	2.10			
PROM	0.76	0.66	0.87	0.77	0.67	0.88	0.80	0.71	0.91
Oxygenation at 28 days							1.48	1.13	1.95
Oxygenation							1.25	1.05	1.48
Abnormal cerebral ultrasound							1.58	1.06	2.34

Impact score

	Method 1			Method 2			Method 3		
	OR	(95% CI)		OR	(95% CI)		OR	(95% CI)	
Maternal age – years	0.98	0.96	0.99	0.98	0.96	0.99	0.98	0.96	0.99
Gestation at birth - days	1.00	0.99	1.00	1.00	0.99	1.00			
Home owner	0.70	0.61	0.80	0.70	0.61	0.80	0.70	0.61	0.80
Sex - males	1.58	1.38	1.80	1.59	1.39	1.81	1.58	1.38	1.80
Multiple births	0.63	0.50	0.79	0.63	0.50	0.79	0.63	0.50	0.79
Maternal antibiotics postnatally				1.24	1.05	1.47	1.23	1.04	1.45
Steroids	1.20	1.02	1.42	1.20	1.02	1.42	1.19	1.01	1.41
PROM	0.82	0.71	0.95	0.82	0.71	0.95	0.85	0.74	0.97
Positive blood culture				1.62	1.19	2.21	1.40	1.02	1.92
Oxygenation at 28 days							1.45	1.10	1.91
Oxygenation							1.20	1.00	1.43

Education

Reading

	Method 1			Method 2			Method 3		
	OR	(95% CI)		OR	(95% CI)		OR	(95% CI)	
Maternal age – years	0.97	0.96	0.99	0.98	0.96	0.99	0.98	0.96	0.99
Gestation at birth - days	0.99	0.99	1.00						
Home owner	0.41	0.34	0.49	0.41	0.34	0.50	0.41	0.34	0.49
Sex - males	1.86	1.55	2.23	1.88	1.57	2.26	1.88	1.57	2.26
Maternal antibiotics postnatally				1.42	1.15	1.77	1.34	1.08	1.67
Positive blood culture				2.03	1.40	2.94	1.59	1.07	2.36
Oxygenation at 28 days							1.92	1.38	2.65

Writing

	Method 1			Method 2			Method 3		
	OR	(95% CI)		OR	(95% CI)		OR	(95% CI)	
Maternal age – years	0.98	0.96	0.99	0.98	0.96	0.99	0.98	0.97	1.00
Gestation at birth - days	0.99	0.99	1.00	1.00	0.99	1.00			
Home owner	0.41	0.34	0.49	0.41	0.34	0.48	0.41	0.34	0.48
Sex – males	1.96	1.65	2.32	1.98	1.67	2.34	1.97	1.66	2.34
Maternal antibiotics postnatally				1.27	1.03	1.57	1.27	1.03	1.56
Positive blood culture				1.87	1.29	2.71	1.63	1.11	2.38
Oxygenation at 28 days							1.56	1.08	2.24
Ventilation							1.35	1.03	1.77

Maths

	Method 1			Method 2			Method 3		
	OR	(95% CI)		OR	(95% CI)		OR	(95% CI)	
Maternal age – years	0.97	0.95	0.99	0.97	0.95	0.99	0.97	0.95	0.99
Gestation at birth - days	0.99	0.98	0.99	0.99	0.98	0.99	0.99	0.99	1.00
Home owner	0.42	0.33	0.52	0.41	0.33	0.52	0.41	0.33	0.52
Sex - males	1.44	1.16	1.80	1.44	1.16	1.80	1.44	1.15	1.80
White	0.56	0.39	0.80	0.55	0.38	0.80	0.56	0.39	0.81
Positive blood culture				1.59	1.01	2.48			
Oxygenation at 28 days							1.99	1.32	3.00

Medical Conditions

Cerebral Palsy

	Method 1			Method 2			Method 3		
	OR	(95% CI)		OR	(95% CI)		OR	(95% CI)	
Gestation at birth - days	0.97	0.97	0.98	0.98	0.97	0.98			
Positive blood culture				1.89	1.13	3.17			
PROM	0.66	0.48	0.92	0.67	0.48	0.93			
Erythromycin	1.52	1.10	2.09	1.53	1.11	2.11	1.49	1.07	2.07
Abnormal cerebral ultrasound							8.65	5.46	13.72
Ventilation							4.02	2.78	5.81

Seizures

	Method 1			Method 2			Method 3		
	OR	(95% CI)		OR	(95% CI)		OR	(95% CI)	
Maternal age – years	0.97	0.96	0.99	0.97	0.96	0.99	0.97	0.95	0.99
Multiple births	0.68	0.48	0.96	0.66	0.47	0.94	0.63	0.45	0.90
Sex - males	1.29	1.06	1.56	1.29	1.06	1.56	1.27	1.05	1.54
Steroid use	1.36	1.05	1.75	1.34	1.04	1.73	1.30	1.01	1.68
PROM	0.78	0.65	0.95	0.76	0.63	0.93	0.74	0.61	0.90
Positive blood culture				1.67	1.10	2.55			
Abnormal cerebral ultrasound							2.99	1.89	4.73
Respiratory distress syndrome							1.35	1.04	1.77

ADHD

	Method 1			Method 2			Method 3		
	OR	(95% CI)		OR	(95% CI)		OR	(95% CI)	
Maternal age – years	0.96	0.95	0.98	0.96	0.95	0.98	0.96	0.95	0.98
Gestation at birth - days	1.00	0.99	1.00						
Home owner	0.64	0.52	0.78	0.64	0.52	0.79	0.64	0.52	0.78
Sex - males	2.38	1.93	2.93	2.38	1.93	2.93	2.37	1.93	2.93
Multiple births	0.62	0.43	0.90	0.63	0.44	0.90	0.60	0.42	0.87
Steroid use	1.34	1.03	1.73	1.35	1.05	1.74	1.32	1.02	1.71
Positive blood culture				2.23	1.53	3.26	1.83	1.22	2.75
Oxygenation at 28 days							1.63	1.15	2.31

Wheezing in last year

	Method 1		Method 2		Method 3		
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	
Gestation at birth - days	0.99	0.99	1.00	0.99	0.99	1.00	
Home owner	0.66	0.58	0.75	0.66	0.58	0.75	
Sex - males	1.30	1.14	1.48	1.30	1.14	1.48	
Multiple births	0.74	0.59	0.91	0.74	0.59	0.91	
Birth mode – caesarean section	1.17	1.01	1.35	1.17	1.01	1.35	
Surfactant use					1.46	1.15	1.85
Oxygenation at 28 days					1.52	1.14	2.03

Medication for wheeze

	Method 1		Method 2		Method 3		
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	
Gestation at birth - days	0.99	0.99	1.00	0.99	0.99	1.00	
Home owner	0.68	0.59	0.77	0.68	0.60	0.77	
Sex - males	1.34	1.18	1.53	1.35	1.18	1.54	
Birth mode – Caesarean section	1.19	1.03	1.37	1.16	1.00	1.35	
Maternal antibiotics postnatally				1.22	1.04	1.45	
Ventilated					1.36	1.10	1.69
Oxygenation at 28 days					1.52	1.14	2.01

Hospital admission

	Method 1		Method 2		Method 3		
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	
Gestation at birth - days	0.99	0.99	1.00	0.99	0.99	1.00	
Home owner	0.74	0.64	0.86	0.74	0.64	0.86	
Sex - males	1.27	1.10	1.48	1.27	1.10	1.48	
PROM	0.80	0.68	0.93	0.80	0.68	0.93	
Respiratory distress syndrome					1.58	1.30	1.92
Abnormal cerebral ultrasound					1.64	1.08	2.48

Bowel problems

	Method 1		Method 2		Method 3		
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	
Gestation at birth – days	0.99	0.98	0.99	0.99	0.98	0.99	
Home owner	0.63	0.48	0.83	0.63	0.48	0.83	
Multiple births	0.49	0.29	0.81	0.49	0.29	0.81	
White	4.40	1.62	11.97	4.40	1.62	11.97	
Steroid use	1.58	1.06	2.36	1.58	1.06	2.36	
Erythromycin	1.36	1.03	1.78	1.36	1.03	1.78	
Respiratory distress syndrome					2.60	1.90	3.55

Bowel stoma

	Method 1		Method 2		Method 3		
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	
Gestation at birth – days	0.99	0.98	0.99	0.99	0.98	0.99	
Steroid use	2.14	1.02	4.48	2.14	1.02	4.48	
Home owner	0.41	0.27	0.64	0.41	0.27	0.64	
Surfactant use					2.41	1.39	4.15
Abnormal cerebral ultrasound					2.49	1.08	5.77

Other bowel problems

	Method 1		Method 2		Method 3		
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	
Gestation at birth – days	0.99	0.99	1.00	0.99	0.99	1.00	
Multiple births	0.51	0.27	0.96	0.51	0.27	0.96	
White	5.14	1.26	20.89	5.14	1.26	20.89	
Erythromycin	1.42	1.00	2.01	1.42	1.00	2.01	
Respiratory distress syndrome					2.31	1.55	3.44