

Variable	Cerebral Palsy OR (95%CI)	Severe motor disability OR (95%CI)	MDI Coeff. (95%CI)	PDI Coeff. (95%CI)
South east Asian	0.97 (0.27, 3.54)	1.32 (0.28, 6.13)	-2.05 (-9.39, 5.29)	0.26 (-6.86, 7.39)
Caucasian	0.93 (0.46, 1.91)	1.27 (0.46, 3.50)	7.18 (3.43, 10.93)***	-0.36 (-4.13, 3.41)
Afro-Caribbean	0.95 (0.39, 2.28)	0.75 (0.22, 2.62)	-9.63 (-13.95, -5.30)***	-0.05 (-4.45, 4.35)
Afro-Caribbean twin	0.41 (0.05, 3.28)	0.90 (0.11, 7.33)	-4.03 (-11.35, 3.29)	-1.88 (-8.65, 4.90)
Primigravida	0.82 (0.42, 1.58)	1.05 (0.45, 2.42)	1.24 (-1.99, 4.48)	2.75 (-0.39, 5.89)
>= 2 previous perinatal deaths	0.56 (0.26, 1.21)	0.48 (0.16, 1.45)	-4.34 (-7.82, -0.87)*	-0.60 (-4.04, 2.84)
Mother's age per 10 years	0.67 (0.40, 1.12)	0.62 (0.32, 1.23)	-2.14 (-4.88, 0.60)	-1.30 (-3.93, 1.32)
Maternal education >= GCSE	0.67 (0.37, 1.22)	0.60 (0.27, 1.32)	3.22 (0.14, 6.30)*	1.09 (-1.90, 4.09)
Maternal education >= A level	0.57 (0.26, 1.24)	0.54 (0.18, 1.65)	3.83 (0.32, 7.35)*	2.18 (-1.31, 5.66)
Male	2.40 (1.30, 4.45)**	2.14 (0.95, 4.82)	-3.08 (-6.18, 0.02)	-4.16 (-7.13, -1.18)**
Singleton	1.56 (0.76, 3.21)	0.76 (0.33, 1.75)	-1.20 (-4.62, 2.21)	0.56 (-2.74, 3.86)
Maternal smoking in pregnancy	1.51 (0.81, 2.81)	1.10 (0.47, 2.57)	-1.72 (-5.04, 1.61)	-3.96 (-7.15, -0.77)*
Pre-eclampsia	1.41 (0.28, 7.19)	1.30 (0.15, 10.94)	-1.88 (-10.81, 7.05)	4.20 (-4.38, 12.78)
Ante partum haemorrhage	1.35 (0.69, 2.65)	1.99 (0.87, 4.56)	-1.27 (-5.12, 2.59)	-2.05 (-5.82, 1.73)
Chorioamnionitis	0.35 (0.14, 0.85)*	0.51 (0.17, 1.53)	-1.91 (-5.46, 1.64)	-1.17 (-4.57, 2.23)
Prolonged rupture of membranes	1.06 (0.55, 2.07)	1.10 (0.46, 2.63)	-1.80 (-5.20, 1.60)	-0.08 (-3.38, 3.22)
Cervical suture	1.83 (0.72, 4.67)	0.80 (0.18, 3.62)	-2.88 (-8.65, 2.90)	-0.36 (-5.93, 5.22)
Antepartum steroids	0.74 (0.36, 1.49)	0.40 (0.17, 0.92)*	3.44 (-0.37, 7.25)	2.23 (-1.50, 5.97)
Tocolysis	1.00 (0.53, 1.89)	0.56 (0.22, 1.44)	1.82 (-1.63, 5.28)	1.06 (-2.25, 4.37)
Vaginal breech delivery	2.27 (1.21, 4.26)*	2.48 (1.11, 5.53)*	2.67 (-1.16, 6.50)	3.78 (0.15, 7.40)*
Caesarean section	0.74 (0.31, 1.77)	0.87 (0.29, 2.63)	1.21 (-2.76, 5.18)	-1.70 (-5.63, 2.23)
Z-score for birthweight ¹	1.11 (0.81, 1.52)	1.02 (0.68, 1.53)	0.64 (-1.00, 2.27)	0.56 (-1.02, 2.14)
Gestational age per week	0.89 (0.59, 1.35)	0.92 (0.53, 1.57)	1.32 (-0.88, 3.51)	-0.33 (-2.46, 1.80)
Crib score per point	1.01 (0.93, 1.10)	0.99 (0.88, 1.11)	0.11 (-0.33, 0.56)	-0.06 (-0.50, 0.37)
Fetal heart rate >100	1.19 (0.33, 4.27)	0.53 (0.14, 1.96)	-0.21 (-6.11, 5.68)	-1.47 (-7.26, 4.32)
Temperature >= 35°C	0.64 (0.33, 1.25)	0.55 (0.23, 1.31)	1.43 (-2.37, 5.23)	2.35 (-1.28, 5.99)
Worse initial chest X-ray	1.38 (0.74, 2.58)	1.49 (0.67, 3.32)	1.13 (-2.21, 4.46)	0.93 (-2.29, 4.14)
Surfactant given	1.40 (0.56, 3.53)	2.29 (0.52, 10.04)	-0.98 (-5.37, 3.42)	-1.61 (-5.87, 2.64)
Moved hospital within 24h	4.49 (2.09, 9.65)***	6.82 (2.84, 16.38)***	0.86 (-4.92, 6.65)	-1.25 (-6.54, 4.05)
Treatment for PDA	1.41 (0.77, 2.56)	1.58 (0.71, 3.51)	-0.80 (-3.85, 2.24)	0.14 (-2.85, 3.12)
Pulmonary haemorrhage	2.65 (1.05, 6.70)*	6.69 (2.51, 17.84)***	-1.73 (-8.12, 4.65)	-2.19 (-8.43, 4.05)
Any systemic steroids	2.02 (0.93, 4.37)	5.20 (1.20, 22.48)*	-2.51 (-5.86, 0.83)	-2.43 (-5.75, 0.88)
Enteral feeds by 7d	0.26 (0.13, 0.52)***	0.29 (0.12, 0.72)**	1.94 (-1.22, 5.10)	0.94 (-2.09, 3.96)
Breast milk in hospital	0.49 (0.23, 1.04)	0.36 (0.14, 0.88)*	1.71 (-2.90, 6.32)	5.75 (1.36, 10.14)*
>6 weeks systemic steroids	2.26 (1.02, 4.98)*	4.30 (1.76, 10.52)***	-2.54 (-7.99, 2.91)	-3.90 (-8.70, 0.90)
Systemic steroids per week of use	1.13 (1.03, 1.24)**	1.17 (1.05, 1.31)**	-0.68 (-1.23, -0.14)*	-0.43 (-0.93, 0.08)
>8 weeks of systemic steroids	4.74 (1.69, 13.28)**	4.76 (1.52, 14.90)**	-8.21 (-17.06, 0.64)	-3.71 (-11.24, 3.83)
Any surgery before discharge	1.79 (0.98, 3.28)	1.99 (0.91, 4.36)	0.14 (-3.19, 3.48)	-0.02 (-3.24, 3.20)
Necrotising Enterocolitis	1.57 (0.40, 6.14)	0.88 (0.11, 7.15)	-4.42 (-13.24, 4.41)	-1.98 (-10.70, 6.75)
Treatment for ROP	1.14 (0.51, 2.56)	2.45 (1.00, 5.98)*	-1.05 (-5.47, 3.36)	-4.58 (-8.62, -0.53)*
Significantly abnormal USS ²	5.17 (2.60, 10.27)***	6.94 (3.03, 15.88)***	-0.21 (-5.28, 4.87)	-6.50 (-11.45, -1.54)**
Supplemental oxygen at 36 weeks	2.29 (1.03, 5.12)*	3.17 (0.93, 10.83)	-5.12 (-8.46, -1.78)**	-5.07 (-8.32, -1.81)**
Any feeding difficulties at 30m	2.64 (1.44, 4.84)**	3.55 (1.59, 7.94)**	-2.13 (-5.59, 1.34)	-3.14 (-6.43, 0.15)
Socio-economic status per group ³	1.38 (0.95, 2.01)	1.96 (1.14, 3.37)*	-2.77 (-4.68, -0.86)**	-1.37 (-3.27, 0.54)
>=2 older children in the household	0.78 (0.36, 1.65)	0.97 (0.38, 2.52)	-3.72 (-7.35, -0.10)*	-1.82 (-5.34, 1.70)

MDI & PDI, results for children with scores >= 55 and no neuromotor disability

OR= Odds Ratio

Coeff. = regression coefficient which is equivalent to the effect size in developmental units

1 - Z score based on birthweight of EPICure admitted babies, adjusted for gestational age and sex.

2 - parenchymal pathology and/or ventriculomegaly on final cranial ultrasound scan

3 - socio-economic status categories 1= social class 1,2 and 3NM, 2= 3M, 4&5, 3= unemployed

Statistically significant results in bold. * p<0.05, ** p<0.01, *** p<0.001

Associations with Cerebral palsy, severe motor disability and developmental index scores after adjustment for significant variables

Variables	Cerebral Palsy OR (95%CI)	Severe motor disability OR (95%CI)	MDI Coeff. (95%CI)	PDI Coeff. (95%CI)
South east Asian	0.79 (0.18, 3.40)	1.50 (0.27, 8.39)	-5.51 (-12.42, 1.39)	-1.31 (-7.86, 5.25)
Caucasian	0.94 (0.40, 2.17)	0.99 (0.32, 3.13)	3.09 (-2.90, 9.08)	0.73 (-2.77, 4.23)
Afro-Caribbean	1.06 (0.38, 2.95)	0.89 (0.21, 3.79)	-10.44 (-14.86, -6.01)***	-0.98 (-5.08, 3.12)
Afro-Caribbean twin	0.20 (0.02, 2.50)	1.43 (0.15, 13.46)	4.92 (-3.32, 13.16)	-1.86 (-8.14, 4.41)
Primigravida	0.59 (0.27, 1.30)	0.94 (0.35, 2.53)	0.08 (-2.99, 3.14)	3.13 (0.16, 6.10)*
>= 2 previous perinatal deaths	0.65 (0.27, 1.54)	0.66 (0.20, 2.16)	-2.24 (-5.53, 1.05)	0.77 (-2.68, 4.22)
Mother's age per 10 years	0.77 (0.43, 1.39)	0.77 (0.36, 1.61)	-1.18 (-3.77, 1.40)	-0.87 (-3.49, 1.76)
Maternal education >= GCSE	0.99 (0.49, 2.00)	0.88 (0.34, 2.28)	0.49 (-3.05, 4.04)	-0.08 (-2.87, 2.70)
Maternal education >= A level	0.72 (0.30, 1.73)	0.74 (0.20, 2.67)	3.87 (0.52, 7.22)*	0.96 (-2.37, 4.29)
Male	2.29 (1.13, 4.67)*	1.40 (0.54, 3.63)	-4.11 (-7.00, -1.21)**	-5.23 (-8.07, -2.40)***
Singleton	2.11 (0.90, 4.97)	0.56 (0.21, 1.50)	-2.12 (-5.32, 1.08)	1.18 (-1.96, 4.32)
Maternal smoking in pregnancy	1.90 (0.92, 3.91)	0.92 (0.34, 2.48)	-1.71 (-4.83, 1.41)	-1.86 (-4.92, 1.20)
Pre-eclampsia	1.70 (0.22, 13.04)	1.17 (0.10, 13.74)	-0.31 (-10.06, 9.45)	3.98 (-3.91, 11.87)
Ante partum haemorrhage	1.18 (0.53, 2.63)	2.17 (0.79, 5.93)	-3.33 (-6.92, 0.25)	-2.43 (-5.92, 1.06)
Chorioamnionitis	0.65 (0.24, 1.73)	0.61 (0.17, 2.24)	-1.33 (-4.88, 2.22)	-0.67 (-3.86, 2.52)
Prolonged rupture of membranes	2.10 (0.94, 4.66)	2.92 (0.98, 8.68)	-3.27 (-6.37, -0.18)*	0.13 (-2.90, 3.17)
Cervical suture	2.48 (0.84, 7.37)	1.37 (0.25, 7.46)	-1.30 (-6.68, 4.08)	-0.91 (-6.26, 4.44)
Antepartum steroids	0.74 (0.31, 1.75)	0.58 (0.21, 1.62)	4.98 (1.26, 8.70)**	2.59 (-0.86, 6.04)
Tocolysis	0.93 (0.44, 1.98)	0.53 (0.17, 1.64)	0.57 (-2.68, 3.83)	0.93 (-2.15, 4.00)
Vaginal breech delivery	2.09 (0.99, 4.40)	2.38 (0.90, 6.30)	3.14 (-0.51, 6.79)	4.29 (0.93, 7.65)*
Caesarean section	0.86 (0.32, 2.33)	1.13 (0.32, 4.05)	0.31 (-3.45, 4.07)	-1.35 (-5.15, 2.45)
Z-score for birthweight ¹	1.18 (0.81, 1.71)	0.91 (0.55, 1.49)	-0.19 (-1.78, 1.39)	0.05 (-1.44, 1.53)
Gestational age per week	0.90 (0.55, 1.47)	1.26 (0.62, 2.55)	0.68 (-1.40, 2.76)	-0.11 (-2.13, 1.91)
Crib score per point	0.98 (0.88, 1.09)	0.93 (0.80, 1.08)	0.17 (-0.25, 0.59)	-0.11 (-0.51, 0.30)
Fetal heart rate >100	2.00 (0.39, 10.25)	0.36 (0.08, 1.65)	0.41 (-4.92, 5.74)	-0.01 (-5.31, 5.30)
Temperature >= 35oC	0.66 (0.29, 1.49)	0.57 (0.21, 1.59)	-0.16 (-3.73, 3.42)	2.12 (-1.26, 5.49)
Worse initial chest X-ray	0.96 (0.45, 2.05)	1.07 (0.41, 2.83)	1.84 (-1.34, 5.01)	1.61 (-1.45, 4.68)
Surfactant given	1.13 (0.40, 3.18)	1.76 (0.35, 8.78)	-1.73 (-5.95, 2.50)	-0.97 (-5.05, 3.11)
Moved hospital within 24h	2.92 (1.16, 7.35)*	4.98 (1.79, 13.87)**	0.75 (-4.84, 6.33)	0.24 (-4.76, 5.25)
Treatment for PDA	1.52 (0.75, 3.07)	1.32 (0.52, 3.37)	0.08 (-2.83, 2.98)	
Pulmonary haemorrhage	1.73 (0.58, 5.14)	7.34 (2.22, 24.28)***	3.83 (-2.26, 9.92)	-2.31 (-8.12, 3.50)
Any systemic steroids	1.14 (0.47, 2.72)	2.97 (0.61, 14.49)	-1.60 (-4.86, 1.67)	-0.86 (-4.13, 2.40)
Enteral feeds by 7d	0.32 (0.15, 0.66)**	0.49 (0.18, 1.37)	0.52 (-2.46, 3.50)	0.07 (-2.75, 2.88)
Breast milk in hospital	0.62 (0.25, 1.55)	0.25 (0.08, 0.80)*	3.94 (-0.30, 8.19)	5.35 (1.20, 9.49)*
>6 weeks systemic steroids	0.66 (0.15, 2.89)	5.11 (1.73, 15.07)**	-0.96 (-6.05, 4.13)	-2.33 (-6.87, 2.21)
Systemic steroids per week of use	1.00 (0.86, 1.16)	1.05 (0.86, 1.29)	-0.29 (-0.82, 0.24)	-0.17 (-0.67, 0.34)
>8 weeks of systemic steroids	4.77 (1.51, 15.06)**	2.94 (0.45, 19.35)	-4.76 (-12.90, 3.38)	-3.68 (-10.68, 3.33)
Any surgery before discharge	1.28 (0.63, 2.60)	1.08 (0.42, 2.77)	2.88 (-0.28, 6.05)	1.76 (-1.29, 4.81)
Necrotising Enterocolitis	0.75 (0.13, 4.33)	1.73 (0.19, 15.72)	-4.87 (-12.87, 3.13)	-0.43 (-8.72, 7.86)
Treatment for ROP	0.97 (0.39, 2.45)	1.84 (0.63, 5.39)	-2.85 (-6.86, 1.17)	-2.50 (-6.43, 1.43)
Significantly abnormal USS ²	4.87 (2.20, 10.78)***	7.15 (2.73, 18.74)***	-0.75 (-5.43, 3.92)	-5.81 (-10.48, -1.14)*
Supplemental oxygen at 36 weeks	1.53 (0.63, 3.74)	1.80 (0.48, 6.74)	-5.03 (-8.31, -1.74)**	-4.32 (-7.40, -1.23)**
Any feeding difficulties at 30m	1.81 (0.87, 3.76)	2.43 (0.94, 6.29)	-1.71 (-4.96, 1.54)	-3.23 (-6.29, -0.17)*
Socio-economic status per group ³	1.44 (0.92, 2.26)	1.71 (0.89, 3.30)	-0.40 (-2.33, 1.54)	-1.24 (-3.00, 0.52)
>=2 older children in the household	0.85 (0.36, 2.02)	0.92 (0.31, 2.79)	-2.62 (-6.09, 0.86)	-0.90 (-4.44, 2.64)

MDI & PDI, results for children with scores >= 55 and no neuromotor disability

OR= Odds Ratio

Coeff. = regression coefficient which is equivalent to the effect size in developmental units

1 - Z score based on EPICure admitted babies, adjusted for gestational age and sex.

3 - parenchymal pathology and/or ventriculomegaly on final cranial ultrasound scan

4 - socio-economic status categories 1= social class 1,2 and 3NM, 2= 3M, 4&5, 3= unemployed

Statistically significant results in bold. * p<0.05, ** p<0.01, *** p<0.001

Cerebral palsy adjusted for male, moved hospital within 24h, enteral feeding by day 7, >8 weeks of systemic steroids and significantly abnormal USS

Severe neuromotor disability adjusted for moved hospital within 24h, pulmonary haemorrhage, >6 weeks of systemic steroids and significantly abnormal USS

MDI adjusted for Afro-Caribbean origin, maternal education \geq A level, male, any antepartum steroids, prolonged rupture of membranes and supplemental oxygen at 36w PMA

PDI adjusted for primigravida, male, vaginal breech delivery, breast milk in hospital, supplemental oxygen at 36w and significantly abnormal USS.