**Supplemental Table 1:** Logistic regression analysis of PDI and MDI in preterm infants with abnormal metrics selected form table 2 versus normal brain metrics

Model A was adjusted for sex.

Model B was adjusted for sex and maternal education.

Model C was adjusted for sex, maternal education and gestational age.

Odds ratios (OR) are reported as odds ratio per standard deviation increase with 95% confidence interval (CI).

**Supplemental Table 1a**: Logistic regression analysis of PDI in preterm infants with BPW z-score <-0.5

|  |  |  |  |
| --- | --- | --- | --- |
| **Outcome variable and analysis** | **β coefficient** | **p value** | **OR (95% CI)** |
| **PDI at 24 months** |  |  |  |
| Unadjusted | -0.020 | **0.038** | 0.980 (0.961; 0.999) |
| Model A | -0.023 | **0.023** | 0.977 (0.958; 0.997) |
| Model B | -0.021 | **0.048** | 0.979 (0.959; 1.000) |
| Model C | -0.021 | 0.051 | 0.979 (0.959; 1.000) |
|  |  |  |  |

**Supplemental Table 1b**: Logistic regression analysis of MDI in preterm infants with BPW z-score <-0.5

|  |  |  |  |
| --- | --- | --- | --- |
| **Outcome variable and analysis** | **β coefficient** | **p value** | **OR (95% CI)** |
| **MDI at 24 months** |  |  |  |
| Unadjusted | -0.016 | **0.044** | 0.984 (0.969; 1.000) |
| Model A | -0.018 | **0.034** | 0.983 (0.967; 0.999) |
| Model B | -0.019 | **0.036** | 0.981 (0.964; 0.999) |
| Model C | -0.018 | **0.041** | 0.982 (0.965; 0.999) |
|  |  |  |  |

**Supplemental Table 1c**: Logistic regression analysis of PDI in preterm infants with mild enlargement of ECS right

|  |  |  |  |
| --- | --- | --- | --- |
| **Outcome variable and analysis** | **β coefficient** | **p value** | **OR (95% CI)** |
| **PDI at 24 months** |  |  |  |
| Unadjusted | -0.016 | **0.038** | 0.984 (0.969; 0.999) |
| Model A | -0.016 | **0.038** | 0.984 (0.969; 0.999) |
| Model B | -0.017 | **0.038** | 0.983 (0.967; 0.999) |
| Model C | -0.017 | **0.043** | 0.983 (0.967; 0.999) |
|  |  |  |  |

**Supplemental Table 1d**: Logistic regression analysis of MDI in preterm infants with moderate-to-severe enlargement of ECS left

|  |  |  |  |
| --- | --- | --- | --- |
| **Outcome variable and analysis** | **β coefficient** | **p value** | **OR (95% CI)** |
| **MDI at 24 months** |  |  |  |
| Unadjusted | -0.020 | **0.038** | 0.980 (0.961; 0.999) |
| Model A | -0.039 | **0.028** | 0.961 (0.928; 0.996) |
| Model B | -0.037 | **0.045** | 0.963 (0.929; 0.999) |
| Model C | -0.037 | **0.045** | 0.963 (0.929; 0.999) |
|  |  |  |  |

**Supplemental Table 1e**: Logistic regression analysis of MDI in preterm infants extension of IHD and BPW z-score <-0.5

|  |  |  |  |
| --- | --- | --- | --- |
| **Outcome variable and analysis** | **β coefficient** | **p value** | **OR (95% CI)** |
| **MDI at 24 months** |  |  |  |
| Unadjusted | -0.037 | **0.034** | 0.964 (0.931; 0.997) |
| Model A | -0.039 | **0.028** | 0.961 (0.928; 0.996) |
| Model B | -0.037 | **0.045** | 0.963 (0.929; 0.999) |
| Model C | -0.032 | **0.087** | 0.968 (0.933; 1.005) |
|  |  |  |  |