**Supplemental Table 5.**

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**Clinical severity** **MRI findings** **Both**

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MDI PDI MDI PDI MDI PDI

(1) (2) (3) (4) (5) (6)

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**Postnatal sepsis**  2.06 -1.95 2.03 -0.81

(4.05) (4.26) (4.44) (4.47)

**Oxygen at 36 weeks**  -7.42 -13.57 -6.29 -12.06

(8.09) (8.15) (9.87) (9.51)

**Intraamniotic infection** -5.90 -0.44 -6.51 -1.88

(3.93) (4.24) (4.25) (4.38)

**Postnatal hydrocortisone** -6.53 -8.56 -9.22 -9.13

(9.49) (9.61) (11.35) (10.93)

**Inotropic support** -7.68 **-31.75\*** 5.74 -7.69

(11.90) (11.97) (23.43) (22.61)

**Necrotising\_enterocolitis**  -3.33 **-43.01\*\*** -5.62 **-50.13\*\***

(15.27) (15.33) (16.61) (16.04)

**Focal intestinal perforation** -12.51 11.52 -42.85 -38.50

(18.93) (19.00) (34.13) (32.83)

**IVH\_T1T2\_right** -5.09 -2.63 5.86 8.65

(5.41) (5.80) (8.30) (7.97)

**IVH\_T1T2\_left** 0.29 -4.51 -8.53 **-14.96\***

(5.32) (5.61) (7.53) (7.23)

**PVL\_T1T2\_right** -1.38 3.11 -2.84 2.64

(2.96) (3.59) (3.82) (3.70)

**PVL\_T1T2\_left** 2.16 -3.74 2.58 -3.53

(2.58) (3.56) (3.61) (3.47)

**CBH\_T1T2\_right** 5.48 9.56 -16.96 -13.07

(12.51) (13.25) (19.96) (19.20)

**CBH\_T1T2\_left** -1.40 -10.61 25.20 13.51

(15.13) (15.98) (22.94) (22.05)

**Myelination**  -5.50 -5.88 -12.99 -8.06

(8.21) (8.75) (13.06) (12.58)

**Ventricular dilatation** -1.32 -0.98 0.93 2.90

(2.90) (3.30) (3.28) (3.42)

**Gyration** -3.11 0.70 0.23 3.87

(3.43) (3.93) (3.99) (4.19)

Constant 94.56\*\*\* 94.91\*\*\* 99.93\*\*\* 93.42\*\*\* 94.76\*\*\* 90.38\*\*\*

(5.25) (5.30) (4.31) (4.85) (7.11) (7.04) -----------------------------------------------------------------------------------------------------------------------------------------------

Observations 69 60 71 61 69 60

R2 0.19 0.38 0.14 0.27 0.26 0.50

**Adjusted R2** **0.08** **0.28** **0.02** **0.15** **0.01** **0.30**

Residual Std. Error 14.75 (df = 60) 14.78 (df = 51) 15.19 (df = 61) 15.98 (df = 51) 15.28 (df = 51) 14.62 (df = 42)

F Statistic 1.73 (df = 8; 60) 3.88\*\* (df = 8; 51) 1.13 (df = 9; 61) 2.14\* (df = 9; 51) 1.05 (df = 17; 51) 2.47\*\* (df = 17; 42)

Three different models of multivariate linear analysis for MDI and PDI consisting of clinical data and MRI parameters or their combination. Severity of illness did not improve prediction of MDI, but the prediction model for PDI. Nevertheless, the prediction accuracy is still insufficient (R2 = 0.3). IVH, intraventricular haemorrhage; PVL, periventricular leukomalacia,; CBH, cerebellar haemorrhage