

## Oral Abstracts

Primary outcome IVIG 691 (39.3%), Placebo 682 (39.3%), RR 1.0 (0.86,1.16)

Mortality at 2yrs IVIG 317 (18%), Placebo 304 (17.5%), RR 1.03 (0.89-1.19)

### Survivors

Disability at 2yrs IVIG 374 (25.9%), Placebo 378 (26.4%), RR 0.98 (0.87-1.11)

**Conclusions:** Intravenous immunoglobulin therapy had no effect on the outcomes of suspected or proven neonatal sepsis. This trial is substantially larger (n=3,493) than all the other trials in the previous meta-analysis combined (n=378) and illustrates the importance of large pragmatic trials in establishing the role of emerging treatments before their widespread introduction on the basis of potentially unreliable evidence.

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### EARLY PRETERM NEONATAL NEUTROPHIL FUNCTION IN RESPONSE TO ENDOTOXIN.

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**Objective:** To assess neutrophil function in premature infants in the first week of life.

**Method:** We prospectively collected serial blood samples from premature infants (n=11; < 32 weeks gestation) on day 1, 2 and 7 of life and from adult controls (n=11). Whole blood CD11b and Toll Like Receptor 4 (TLR4) expression as well as reactive oxygen intermediate (ROI) production were evaluated using appropriate antibodies and fluorescent substrates via flow cytometry.

**Results:** Preterm baseline CD11b expression was comparable to adults. Baseline neonatal TLR4 expression was decreased compared with adults. Although CD11b and TLR4 expression increased following LPS stimulation, they failed to reach adult levels. Baseline neonatal ROI production was also reduced but increased to adult values by DOL 7.

		Adult	Preterm			p value
			DOL 1	DOL 2	DOL 7	
CD11b	FI	4.6 +/- 1.2	2.8 +/- 0.9	2.6 +/- 1.4	2.3 +/- 0.9	<0.001
TLR4	Con	1123 +/- 172	674 +/- 253	1088 +/- 354	734 +/- 169	NS
	LPS	1301 +/- 674	970 +/- 187	1368 +/- 418	1072 +/- 406	<0.01
ROI	Con	19649 +/- 5200	7059 +/- 2434	9210 +/- 582	13764 +/- 1006	<0.001
	LPS	21173 +/- 5410	9107 +/- 551	10548 +/- 3047	15159 +/- 5790	<0.01

[Results]

**Mean +/- Standard deviation; FI fold increase; DOL= day of life; p value comparing adult and preterms**

**Conclusions:** Preterm infants have altered immune function in the first week of life with a reduction in endotoxin response compared with adults. This may increase their susceptibility to infection but could also minimise damaging inflammatory responses.

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### B-TYPE NATRIURETIC PEPTIDE AS EARLY BIOMARKER FOR EVALUATION OF PERSISTENT PULMONARY HYPERTENSION TREATMENT IN NEONATES

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**Background:** During persistent pulmonary hypertension (PPHN) the pulmonary vascular resistance remains elevated in the neonatal period. Treatment is directed towards decreasing the pulmonary vascular resistance (Nitric Oxide (NO)) and preserving adequate blood pressure. Besides regular echocardiographic evaluation, no biomarker is available to evaluate the effectiveness of the treatment.

We investigated whether serum B-type Natriuretic Peptide (BNP) is a useful biomarker to evaluate the course of PPHN and effectiveness of treatment.