Abstract PS-299 Table 1

Variable	GM+ve	GM-ve	p value
Number infants	50	311	
GA (wk)	26.6 ± 3.2	28.7 ± 3.5	0.0001
Premature Rupture Membranes	60%	38%	0.0032
Prolonged Rupture Membranes >12 hr	40%	23%	0.0047
Delivery Mode C-section	62%	75%	0.0492
Prenatal macrolide antibiotics	44%	27%	0.0143

for genital mycoplasmas (GM) and complete blood counts within 24 hrs. of birth. Infants with GM+ve were compared with GM-ve for perinatal and neonatal variables.

Results Of the 361 infants with tracheal aspirate cultures sent for GM, 50 positive were GM+ve (See Table). Infants GM+ve had significantly higher platelet counts compared to those GM-ve (285 ± 177 *vs.* 196 ± 83; p = 0.007). After controlling for perinatal variables (GA ≤32 wk., premature rupture of membranes, delivery mode, prenatal antibiotics and prenatal steroid) in GM+ve the adjusted odds ratio for an initial platelet count of > 250,000 was 3.83 (95% CI 1.5–9.8) with p value of 0.0049. However, GM+ve infants had no significant changes in other haematological parameters such as total WBC counts, neutrophil, monocyte, lymphocyte or eosinophil counts.

Conclusions Vertical transmission of GM to the infant is manifested subtly at birth without significant changes in haematological parameters except an increase in platelet count > 250 K.

Significance Increase in platelet counts at birth may be an important marker for the effects of GM on premature newborn infants.

PS-300 CHORIAMNIONITIS AND CRP AS MARKERS FOR SHORT AND LONG TERM OUTCOMES IN PREMATURE INFANTS

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Background Early infant CRP levels in the setting of Chorioamnionitis (CA) have not been fully defined as a predictor of cognitive, behavioural, and neuro-developmental outcomes among extremely preterm neonates.

Methods 499 preterm neonates had Placental pathology, CRP level and Vermont Oxford outcomes recorded. Death and developmental outcomes at 2 yrs were examined for 247 preterm infants <32 wks and <1.5 kg. Multivariable logistic and linear regression models were developed to assess the association between CA and outcomes controlling for gestational age.

Results 499 preterm infants were included with mean birth weight of 1074 +/- 273 g and gestational age of 28.5 +/-2.7 weeks. Infants with CA (N = 127) had lower GA and birth weight and higher rates of early onset sepsis. The Fetal inflammatory response was associated with: Apgar <7 at 10 mins; intubation in the delivery room; PDA; RDS; pneumothorax and oxygen on Day 28.

Infants with Day 1 CRP >10 mg/L needed significantly more resuscitation in the Delivery room (DR) including adrenaline and cardiac compressions. They were significantly more at risk of RDS, ROP, grade III/IV IVH.

Conclusion There is a correlation between both initial CRP and histological CA with adverse short term outcomes.

PS-301 CONDITIONS OF INTESTINAL COLONISATION IN PRETERM INFANTS DURING THE FIRST MONTH OF LIFE

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Aim To describe intestinal microbiota in preterm infants admitted to the Neonatal Unit using molecular techniques, and assess the impact of different conditions.

Methods/study design A two year period Descriptive study (2011–2012) of gut microbiota in stools from newborns borns under 35 week gestational age (WGA) at birth, admitted in a Neonatal Care Unit. Stool samples were collected: M1 (meconium), M2 (first week), M3 (first month). 5 groups of bacteria were analysed using qPCR technique: *Bacteroides*, *Bifidobacterium*, *Escherichia coli*, *Clostridiums* and *Lactobacillus*. Maternal, perinatal and neonate variables were registered. Statistic programs SPSSvs 20.

Results In the first month a marked increase (x120) in *Bifidobacterium* is observed. The increase of *Lactobacillus* (x2) and E. coli (x7) is lower. *Bacteroides* and *Clostridium* remain stable.

Abstract PS-301 Table 1

	E coli	*Clostridium*	*Bacteroides*	*Bifidobacterium*	*Lactobacillus*
M1 (n = 82)	$1{,}51 \times 10^3$	47,3	22,53	$4{,}16 \times 10^4$	$3{,}30 \times 10^3$
M2 (n = 74)	$4{,}77 \times 10^3$	31,63	12,39	$2{,}04 \times 10^5$	$7{,}04 \times 10^3$
M3 (n = 35)	$1{,}14 \times 10^4$	43,04	32,26	$4{,}98 \times 10^6$	$8{,}39 \times 10^3$

Value: p50 cfu/g

Regarding WGA in ≤ 30 vs > 30 we observed:

- Bifidobacterial colonisation is delayed at birth ($2{,}35 \times 10^4$ vs $6{,}02 \times 10^4$ cfu/g; p = 0,09) and at one week birth age ($3{,}98 \times 10^4$ vs $1{,}49 \times 10^6$ cfu/g; p = 0,007).
- Higher numbers of E. coli from the first sample ($4{,}37 \times 10^3$ vs $9{,}07 \times 10^2$ cfu/g; $1{,}55 \times 10^4$ vs $2{,}93 \times 10^3$ cfu/g; $2{,}94 \times 10^4$ vs $9{,}69 \times 10^3$ cfu/g), although no significant statistically differences were detected.

Conclusions The number of *Bifidobacterium* and *Lactobacillus* in faecal samples is higher than the content in *Bacteroides*, *Clostridium* and *E.coli*. The colonisation process of studied bacteria is delayed in prematures born at lower WGA, except for *E. coli*.

PS-302 HUMAN CATHELICIDIN ANTIMICROBIAL PEPTIDE LL37 INFLUENCES STAPHYLOCOCCUS EPIDERMIDIS´ BIOFILM-ASSOCIATED GENE-EXPRESSION AND BIOFILM MASS ON A MEDICAL DEVISE SURFACE

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