

admission to the neonatal unit (adjOR 1.35, 95% CI 1.06–1.72) and to have a congenital anomaly (adjOR 1.71, 95% CI 1.07–2.76). The overall caesarean section rate in nulliparous women was 23.9% with marked differences at the extremes of maternal age; 10.7% at age ≤ 17 years, adjOR 0.46 (95% CI 0.34–0.62) and 54.4% at age ≥ 40 years, adjOR 3.24 (95% CI 2.67–3.94).

Conclusions Extremes of maternal age need to be recognised as risk factors for adverse delivery outcomes. Low caesarean section rates in younger women suggest that a reduction in overall caesarean section rates may be possible.

PL.22 LACTATE CLEARANCE AND OUTCOME IN NEONATES COOLED FOR HYPOXIC ISCHAEMIC ENCEPHALOPATHY

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Aims To investigate the clearance of blood lactate level in neonates undergoing whole body cooling for hypoxic ischaemic encephalopathy (HIE) related to their outcome.

Methods Retrospective case note review of infants receiving whole body cooling at a tertiary neonatal centre with outcome data enabling grouping into normal or abnormal neurological examination, or death, at follow up. Blood lactate measurements taken at 6, 12, 18, 24, 48, 72 and 96 hours were compared across the outcome groups. Data is given as median (\pm interquartile range)

Results 61 infants were identified with birth weight 3.31 (2.77–3.55) kilogrammes, gestation 39 (38–40) completed weeks, ten minute Apgar score of 5 (2–6) and arterial cord pH 6.95 (6.82–7.08). 13 infants died, 14 had abnormal and 34 normal neurological follow up at last examination.

Kruskal-Wallis test demonstrated significant differences in blood lactate between the three outcome groups at 6, 12, 18, 24, 48 and 72 hours:

Abstract PL.22 Table 1

Median lactate mmol/L		Time							
		6hr	12hr	18hr	24hr	36hr	48hr	72hr	96hr
Outcome	Normal	7.4*	4.3*	4.4*	3.1*	2.3	1.9*	1.4*	1.7
	Abnormal	6.7	5.2**	5.6	4.8	3.4	3.0	2.6***	2.0
	Death	13.5	10.4	7.7	4.3	3.9	4.2	4.6	2.0

Using Mann Whitney U test: * $p < 0.03$ compared to those who died, ** $p < 0.02$ compared to those who died, *** $p < 0.02$ compared to those who had a normal outcome.

Conclusions In this preliminary study blood lactate measurement shows statistically significant differences for neonatal outcome in terms of death, abnormal or normal examination. This may aid prognostication in infants suffering HIE, and help determine further management.

PL.23 USE OF QUANTITATIVE FETAL FIBRONECTIN MAY IMPROVE RISK ASSESSMENT IN SYMPTOMATIC WOMEN AT RISK OF PRETERM BIRTH

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Background The presence of raised fetal fibronectin (fFN) levels in cervicovaginal secretions between 24–34 weeks gestation is associated with an increased risk of spontaneous preterm birth in symptomatic women. Recent developments in testing now enable a quantitative level to be derived. Currently, a level of ≥ 50 $\mu\text{mol/l}$ is considered a positive test result. Presently, there is no data to guide

clinicians as to which levels signify greater or lesser risk of imminent delivery.

Method This retrospective study was undertaken within Leeds Teaching Hospitals Trust. All fFN tests undertaken in the Maternity Assessment Unit between August 2010 and July 2012 were ascertained, and pregnancy outcomes were collated. 303 results had adequate data to allow analysis and 97 of these included quantitative fFN levels.

Results The overall sensitivity of the test in predicting delivery within 14 days of the test was 64.3%, with a positive predictive value of 17.3%. The specificity of the test was 85.1%, with a negative predictive value (NPV) of 98.0%. The test was more reliable when used in gestations ≤ 29 weeks when compared to those ≥ 30 weeks as higher values were obtained for specificity and sensitivity; 85.8% and 100% respectively. When examining the quantitative data, the percentage of ladies who delivered within 14 days from the test was 3% if fFN levels were between 0–19, 20% (20–49), 0% (50–199), 20% (200–499) and 100% (>500).

Conclusion Knowledge of quantitative fFN levels may enable more accurate risk assessment of symptomatic women at risk of preterm birth, and inform follow-up pathways.

PL.24 DO BIRTH PLACE DECISIONS CHANGE OVER A WOMAN'S CHILDBEARING CAREER?

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In England, most women give birth in hospital obstetric units (OUs). First births usually occur in an OU, and women are thought more likely to opt for a different place of birth in subsequent pregnancies, especially if their first births are straightforward. However, this assumption is not based on evidence, because few studies explore the impact of birth on future birth place intentions.

This NIHR-funded research used a longitudinal, narrative design; 41 women with mixed parity and clinical risk profiles were recruited, using a maximum variation sampling strategy, and 113 interviews were conducted during pregnancy, birth and the early postnatal period. Longitudinal data analysis explored the influence of events during birth upon future birth place intentions.

Planned place of birth, willingness to consider different settings and the timing of birth place decisions all differed by parity. Most women who intended to give birth in hospital did so; following birth, they would usually do the same in future, even if their births were straightforward. Women who planned birth in non-hospital settings were less likely to achieve this, especially during first pregnancies, but usually wanted to achieve non-hospital birth in the future.

These findings raise questions about the effect of birth place decisions made during one pregnancy upon women's subsequent childbearing careers, and have implications for the sustainability of options other than obstetrician-led units. When balancing risks and benefits of OU birth in one pregnancy, it is important to consider the impact this experience might have on women's future birth place decisions.

PL.25 PRENATAL DIAGNOSIS OF CONGENITAL HEART DISEASE: EFFECT ON LABOUR PROGRESS AND MODE OF DELIVERY

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