specific standardised tests in order to achieve effective neurodevelopmental surveillance of this vulnerable population.

G111 IMPACT OF TRANSCUTANEOUS BILLIRUBINOMETER TESTING ON BABIES WITH VISIBLE JAUNDICE BY COMMUNITY MIDWIVES ON HOSPITAL REFERRALS

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Introduction Referrals of newborn babies with jaundice to hospital has emotional and financial impact on parents and increases work load of hospitals. We report results from a service evaluation project looking at the introduction of transcutaneous bilirubinometers (TsB) testing to community midwives using JM 103 TsB as recommended in NICE neonatal jaundice guideline (CG 98).

Aim Assess impact of TsB to reduce avoidable hospital referral by community midwifes.

Methodology A limited pilot project undertaken in 2013 showed that in the absence of TsB only 40% of babies referred to hospital for neonatal jaundice were admitted. Average waiting time before medical review was 255 min in paediatric assessment units. With innovative project funding from the Welsh Government the project team trained and equipped all 80 community midwives in the Health Board with a TsB each from February 2014. A clear referral pathway was established and activity recorded.

Results Data was collected on all babies reviewed by midwives at home for a 6 month period between 01/02/2014 to 31/07/2014 in the Health Board. Compliance of midwifes to protocol was high. 5647 babies were reviewed by midwives, 1046 (19%) were tested with TsB for visible jaundice and 63 (1%) were referred to hospital. Of 48 babies audited 69% of those referred were admitted and 54% received phototherapy. Average waiting time reduced to a quarter at 58 min. Service was given a maximum satisfaction rating by most parents. JM 103 TsB was found to be 100% specific in predicting need for hospital admission (95% CI 78% –100%) and need for phototherapy (95% CI 84.4 –100%).

Conclusion Judiciously used TsB can half avoidable hospital referrals and quarter waiting times for babies with neonatal jaundice in first 2 weeks of life. This combined with immediate reassurance and a non invasive pain free test resulted in high parent satisfaction scores. Financial benefits incur to parents from reduced travel costs and to hospitals from reduced blood testing and saved medical time.

G112 CHORIOAMNIONITIS IN PRETERM INFANTS IS NOT ASSOCIATED WITH BRAIN SIZE AND MATURATION AT TERM EQUIVALENT AGE

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Introduction Chorioamnionitis is a risk factor for adverse neurodevelopment in preterm infants but the effect on brain size or maturation is unclear. This study aimed to determine the association between perinatal characteristics and histological chorioamnionitis in a cohort of preterm infants. We also aimed to establish the association between chorioamnionitis and brain size and maturation.

Methods A large prospective cohort of preterm infants was identified and data from placental histology reports were

Abstract G112 Table 1 Participant characteristics

Chorioamnionitis and brain MRI: Results 1 Nov 2014				
	Chorioamnionitis			P value
	None (n=179)	Maternal response only (n=19)	Both maternal and fetal response (n=39)	
Antenatal steroids	136 (76.0)	17 (89.5)	32 (82.1)	0.32
Gestation at birth in weeks, mean (SD)*	31.8 (3.4)	30.0 (3.7)	29.1 (3.6)	<0.0001
Gestational age groups				
• Very preterm	71 (39.7)	13 (68.4)	28 (71.8)	<0.0001
• Mod/late preterm	108 (60.3)	6 (31.6)	11 (28.3)	
Birthweight in grams, mean (SD)*	1619 (613)	1597 (928)	1331 (559)	0.04
Birthweight z-score, mean (SD)*	-0.7 (1.1)	0.1 (1.1)	-0.2 (0.7)	0.0003
Small for gestational age	30 (16.8)	0 (0)	0 (0)	-
Male	91 (50.8)	11 (57.9)	18 (46.2)	0.70
Multiple birth	87 (48.6)	3 (15.8)	9 (23.1)	0.001
Ruptured membranes>24 hours	16 (9.3)	5 (26.3)	22(56.4)	<0.0001
Any IVH	10 (5.6)	3 (15.8)	10 (25.6)	<0.0001
Cystic PVL	0 (0)	1 (5.3)	0 (0)	-
Chronic lung disease	23 (12.9)	3 (15.8)	10 (25.6)	0.13
Postnatal steroids	11 (7.9)	1 (5.9)	3 (9.4)	0.87

Data are n (%) unless otherwise specified; SD – standard deviation, IVH – intraventricular haemorrhage, PVL – periventricular leukomalacia; All comparisons using chi-squared except for those marked * where ANOVA used instead