

**Aim and Methods** We conducted a prospective study over a 17-month period (June 2011–November 2012) to determine short-term clinical outcomes in the whole cohort of infants born at >35 weeks gestation who had an arterial cord or first hour pH of  $\leq 7.10$ .

**Abstract PL.12 Table 1** Short-term clinical outcomes of infants born with perinatal acidosis

Outcomes	All Infants N = 69	Not Cooled N = 57	Cooled N = 12
HIE any grade	31(45%)	19(33%)	12(100%)
HIE grade 1	13(19%)	11(58%)	2(17%)
HIE grade 2	12(17%)	6(31%)	6(50%)
HIE grade 3	6(8%)	2(10%)	4(33%)
Clinical Seizures	16(23%)	9(16%)	7(58%)
Respiratory Support	24(35%)	14(24%)	10(83%)
Hypoglycaemia	18(26%)	14(24%)	4(33%)
Feeding problems	48(69%)	36(63%)	12(100%)
Age at full Suck Feeds Median (range), days	1 (0–13)	1 (0–13)	6 (1–13)
Age at discharge home Median (range), days	3(0–23)	2 (0–16)	10 (3–23)
Died	1(1)	0	1(8)

**Results** 69 infants were admitted with severe acidosis. CTG abnormalities were present in 71% of cases. Overall, 31/69 (35%) infants showed signs of hypoxic-ischaemic encephalopathy (HIE) and 12/69 (17%) were cooled. Of non-cooled infants, 8/57 (14%) developed moderate-severe HIE (Table 1).

**Conclusion** Short term morbidities are common in the whole cohort of infants born with severe perinatal acidosis, including in infants initially evaluated as not meeting current criteria for cooling.

**PL.13 EXPERIENCES OF WOMEN AND FAMILIES IN ALONGSIDE MIDWIFERY UNITS: TACKLING THE BOTTLENECKS AND CRITICAL TOUCHPOINTS**

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<sup>1</sup>S Rance, <sup>2</sup>J Rayment, <sup>2</sup>C McCourt, <sup>1,2</sup>J Sandall. <sup>1</sup>King's College, London, London, UK; <sup>2</sup>City University, London, UK

**Background** Alongside midwifery units (AMUs) provide care for women deemed 'low-risk' and *Birthplace in England* found that low risk women received significantly fewer interventions in AMUs compared to obstetric units with no difference in perinatal outcomes. The number of AMUs are increasing, however, little is known regarding

How to organise services to improve quality, safety and women's experiences.

Women's experiences

**Aim and Methods** A Birthplace follow-on study investigated AMU organisation from users' and professionals' perspectives. Case study of AMU in 4 NHS Trusts across England. Data collected November 2011 - October 2012: observations (>100 hours); semi-structured interviews with staff, managers and stakeholders (n = 89) and postnatal women and birth partners (n = 47).

**Results** We found several critical touchpoints. Women had unequal access to information enabling them to choose and engage with midwife-led care. Women often experienced care inside AMUs as excellent, but system and provider generated issues in admission and transfer led to difficulties for some in gaining access in early labour. Factors enabling women to feel safe included accompaniment by partners; perception of personalised assessment of progress in labour; being assured of appropriate pain relief, timely transfer if required, and staff prepared to listen, inform, and acknowledge their concerns and needs.

**Conclusion** Greater attention needs to be given to woman-centred care at the critical interface between midwife led settings with antenatal services and OUs.

**PL.14 WOMEN'S JOURNEYS THROUGH BIRTHPLACE SETTINGS: ANALYSIS OF THE MANAGEMENT AND EXPERIENCE OF ESCALATION AND TRANSFER DURING LABOUR AND BIRTH**

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<sup>1</sup>J Sandall, <sup>1</sup>S Rance, <sup>2</sup>J Rayment, <sup>2</sup>C McCourt. <sup>1</sup>King's College, London, London, UK; <sup>2</sup>City University, London, UK

**Introduction** *Birthplace in England* found that transfer rates for first time mothers planning to give birth at home, or in a midwife led unit ranged between 36 and 45%. Delays in escalation, transfer and response are a quality and safety issue.

**Aim** Our overall aim was to describe and explore features of maternity care systems that may have affected the provision of high quality and safe care in different birth settings. This paper presents the experiences of women and families of their journey through the maternity system.

**Methods** Organisational case studies in 4 NHS Trusts in 4 health regions in England. Data collected from March 2010 to December 2010 included: observation of meetings and ward life (>150 hours); semi-structured interviews with staff, managers and external stakeholders (n = 86); postnatal women and birth partners (n = 72).

**Results** The 3 delays model (1) escalation (2) transfer (3) treatment was drawn upon to analyse how women's journeys through different birth settings were managed and experienced. Most women felt prepared for the unpredictability of events, and some experienced transfer and handover with feelings of worry, disempowerment or disappointment. Some felt unable to ask about options with professionals, although careful explanation by professionals was a common theme in positive narratives by women and partners.

**Implications** The study found wide variation in the organisation and delivery of home birth services compared to other settings. Successful management of escalation and transfer requires an understanding variation and gaps in systems, addressing boundaries that delay effective transfer and escalation of care.

**PL.15 ARE OBSTETRICIANS NORMAL? PERSONAL BIRTH CHOICES AND OUTCOMES OF SOUTH WEST OBSTETRICIANS AND GYNAECOLOGISTS; WITH COMPARISON TO REGIONAL AND NATIONAL BIRTH STATISTICS**

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<sup>1</sup>K Lightly, <sup>1</sup>EH Shaw, <sup>2</sup>N Dailami, <sup>1</sup>D Bisson. <sup>1</sup>Southmead Hospital, Bristol, UK; <sup>2</sup>University of West UK, Bristol, UK

**Objectives** Publication of NICE caesarean section guideline re-established debate about whether obstetricians fear childbirth. This study aimed: To determine personal choices of practising obstetricians on mode of delivery for themselves or their partners in various clinical scenarios; To determine actual rates of modes of deliveries amongst obstetricians and gynaecologists in South West (SW) England.

**Methods** A piloted online survey link was sent to all obstetricians and gynaecologists (consultants and trainees) in SW England using a robust email database. Obstetricians mode of delivery data between 2006–2011 was compared to regional/national population data, using Hospital Episode Statistics (HES).

**Results** Response rate: 165/242 (68%). 89.9% of SW obstetricians stated they would plan vaginal delivery for themselves/their partners; 10.1% would opt for caesarean section in an uncomplicated primiparous pregnancy.

94/165 (60%) respondents had their own children (201 children). Mode of delivery for first born child; normal vaginal 48%, caesarean section 26.5% (elective 8.5%, emergency 18%), instrumental 24.5% and vaginal breech 1%. Elective caesarean was performed in 8.5%. Only one chose an elective caesarean for maternal request. SW obstetricians statistically have the same overall actual modes of birth (Kruksal-Wallis  $p = 0.932$ ).

**Conclusions** 10% report they would request caesarean section for themselves/their partner, which is the lowest rate reported within UK studies. Only 1% had a caesarean solely for maternal choice. SW Obstetricians would choose non interventional delivery if possible. They currently have modes of delivery that are not statistically different from the general population. These results challenge long held misconceptions about birth choices made by obstetricians.

**PL.16 DOES THE USE OF CARBETOCIN REDUCE RECOVERY TIMES AT CAESAREAN SECTION? AN AUDIT OF OUTCOMES FOLLOWING ROUTINE INTRODUCTION OF CARBETOCIN AT SOUTHMEAD HOSPITAL**

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<sup>1</sup>EH Shaw, <sup>2</sup>E Bækgaard, <sup>1</sup>D Siassakos, <sup>1</sup>TJ Draycott. <sup>1</sup>Southmead Hospital, Bristol, UK; <sup>2</sup>Bristol University, Bristol, UK

**Objectives**

1. To investigate time in theatre recovery for women who received carbetocin at Caesarean Section (CS) compared with a historical cohort.
2. To compare costs per patient, from a health sector perspective, between the two cohorts.

**Methods** We evaluated outcomes for all women (elective and emergency) undergoing CS, after the introduction of carbetocin in April 2012. The controls comprised every 3<sup>rd</sup> patient undergoing CS in January 2012 (pre-carbetocin).

**Main outcome measure** Difference in time in theatre recovery between the two groups.

**Results** Women who received carbetocin ( $n = 265$ ) spent less time in recovery than the historical cohort ( $n = 33$ ) (carbetocin 170 min, syntocinon 271 min; difference:  $-101.3023$  minutes, 95% CI:  $-175.8518$ ;  $-26.75276$ ,  $p < 0.01$ ).

Additionally there was reduced need for additional 3<sup>rd</sup> stage uterotonics (carbetocin 16%, syntocinon 60%; mean difference in proportion:  $-0.294$ , 95% CI:  $-0.1183$ ;  $-0.4697$ ). This is consistent with findings from RCTs.

Using financial modelling (Abstract No: PL.19) drug cost per patient when all 3<sup>rd</sup> stage requirements are included is carbetocin £7.78 v syntocinon £6.37. In addition, reduced theatre recovery time has potential midwifery staffing cost efficiencies of up to £189,000 pa.

**Conclusion** Carbetocin decreases time spent in recovery post-CS, and reduces the need for additional 3<sup>rd</sup> stage management.

**Discussion** Introducing carbetocin routinely for all CS will reduce recovery times and potentially constitutes a cost saving. There are likely to be additional important staffing and theatre efficiencies.

**PL.17 TESTING FOR LIKELIHOOD OF PRE-TERM LABOUR – A DESCRIPTIVE STUDY OF ENGLISH MATERNITY UNITS 2011–2012**

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CEM Aiken, M Malina, JC Brockelsby. Addenbrooke's Hospital, Cambridge, UK

**Introduction** Prematurity is a leading cause of neonatal morbidity and mortality. Tests are available to help predict the likelihood of pre-term labour (PTL), although optimal protocols remain uncertain. We assessed the changing pattern of testing in English maternity units.

**Methods** 163 maternity units were surveyed online in Sept/Oct 2011, and again in Sept/Oct 2012. In 2012, non-responders were followed up by telephone contact. The overall response rate improved from 32.5% (54 units) in 2011 to 73% (119 units) in 2012. Data were analysed quantitatively using contingency tables, and spatially using Geomapping software.

**Results** In 2012, 87% (CI; 80–92%) of units used biochemical testing to predict PTL, a significant ( $p < 0.05$ ) increase from 2011 (76%, CI; 63–85%). For units where data were available for both years, 33% altered their method of PTL testing between 2011–2012, with 40% of these initiating biochemical testing. 14 units did not test for pre-term labour (11%, CI; 7–18%). The most commonly cited barriers to testing were cost and inexperience of operators, each cited by 16% of units (CI; 10–24%). On the basis of test results, 94% (CI; 87–97) of units gave steroids, but only 77% (CI; 67–84) discharged home and 82% (CI; 73–88%) arranged *in utero* transfer.

**Conclusions** Our results suggest a heterogeneous pattern of test utilisation. The high proportion of units changing methods within a year implies confusion regarding optimal strategies for PTL prediction. There is an urgent need for further research and clearer guidance in this area. Heterogeneity in protocols could lead to suboptimal allocation of valuable neonatal network resources.

**PL.18 VALIDATION OF A SKILL LIST OF NON-TECHNICAL SKILLS FOR OBSTETRICIANS WHEN PERFORMING AN OPERATIVE VAGINAL DELIVERY**

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<sup>1</sup>G Cass, <sup>2</sup>K Goyder, <sup>2</sup>B Strachan, <sup>2</sup>R Bahl. <sup>1</sup>Musgrove Park Hospital, Taunton, UK; <sup>2</sup>St Michaels Hospital, Bristol, UK

**Background** Non-technical skills for obstetricians play a vital role in adequate patient care and combine social and cognitive elements that are separate from the practical skills involved in obstetric care. Categories of non-technical skills for operative vaginal delivery have been postulated from healthcare professionals to provide a framework of good practise.

**Aim of this study** To validate the social non-technical skills defined by obstetricians and midwives.

**Method** Women who had an operative vaginal delivery of a term baby underwent a semi structured interview 6–8 weeks postnatal. The interview recordings were transcribed verbatim. Thematic coding of data was carried out. Consistency of interpretation was ascertained by two researchers. Data was analysed to compare and contrast the emerging themes to the elements and categories previously identified.

**Results** 16 interviews were transcribed and analysed for this study. Social categories of non-technical skills, namely professional relationship, behaviour, teamwork and communication, suggested by obstetricians and midwives were common themes from all participants. New themes emerged such as 'importance of understanding preconception of what operative vaginal delivery would involve'.

**Conclusion** The non-technical skills developed by obstetricians and midwives in operative vaginal delivery have been validated by women. Furthermore new themes emerged that need to be embedded into the pre-existing categories. This validated framework of non technical skills is vital to ensure an operative vaginal delivery occurs in an environment that is positive and respects the unique event of a birth of a child. Additionally the framework can be used as a tool for training and feedback.

**PL.19 COST COMPARISON OF ROUTINE CARBETOCIN USE AT CAESAREAN SECTION**

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<sup>1</sup>EH Shaw, <sup>2</sup>E Bækgaard, <sup>1</sup>D Siassakos, <sup>1</sup>TJ Draycott. <sup>1</sup>Southmead Hospital, Bristol, UK; <sup>2</sup>Bristol University, Bristol, UK