

## PL.08 EVALUATION OF A NEW FORMATIVE ASSESSMENT TOOL FOR VACUUM DELIVERY

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**Introduction** Instrumental deliveries account for 10–13% of births in the UK. Achieving competence in vacuum delivery is a mandatory requirement of the RCOG core curriculum. OSATS are the current tool used for formative and summative work based assessment of practical skills. Performance of each subtask is classified as competent or 'needs help'. The level of expertise for each subtask is not individually defined limiting the detail of the feedback for formative assessment.

**Aim** To ascertain the inter-rater reliability of a new formative assessment tool where the construct validity has already been established.

**Methods** 22 videos of vacuum delivery conducted by obstetricians of varying grade were reviewed independently by two assessors. The formative assessment tool was completed for each video recording. There were a total of 12 subtasks, each scored between 1 and 5.

**Results** The scores for each video ranged from 39 to 60. The total scores for each video recording were compared using the Cohen Kappa co-efficient, with a resulting co-efficient of 0.62 (SE 0.08, 95% CI 0.44 – 0.78) indicating strong reliability.

**Discussion** Reduction in training hours has made experiential learning more challenging and therefore effective training and assessment tools are increasingly important. This new tool aims to give more detailed feedback and provide a thorough assessment of the necessary steps in performing a competent vacuum delivery.

We believe this tool shows promise as an alternative to the current standard of assessment.

## PL.09 SECOND-STAGE CAESAREAN SECTIONS: HOW TO DELIVER AND HOW TO TRAIN?

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**Background** Approximately 8000 full dilatation caesarean sections (CS) are performed in the UK each year<sup>1</sup>. Delivery can be technically challenging and associated with greater maternal and fetal morbidity<sup>1</sup>. There are no national guidelines. The aim of this study is to determine expert consensus on the most important techniques for safe delivery and to validate a second-stage CS simulation device ('Desperate Debra').

**Method** Results of questionnaires were independently analysed by two people. Specialists performed three deliveries with different fetal positions and degrees of impaction on a second-stage CS simulator and completed visual analogue scores (VAS).

**Results** Responses were received from 47 specialists (>7 years experience) with a mean 18 years of labour-ward experience. The five most reported important techniques for safe delivery were 1) high uterine incision (n = 28), 2) assistance to push fetal head transvaginally (n = 25), 3) correct flexion of fetal head (n = 20), 4) determine fetal position prior to starting (n = 17) and 5) disimpaction of the fetal head in the caudal direction prior to elevation (n = 13). The training scenarios were performed by 30 specialists (mean 7 years experience). The degrees of impaction (1.light, 2.moderate, 3.severe) correlated with perceived difficulty of delivery (mean VAS 29/100, 42/100 and 88/100 respectively; 1–2 vs. 3 linear regression p < 0.001). Delivery was successful in 100%, 90% and 61% respectively (1–2 vs. 3 binomial regression p < 0.05). 87% of specialists found it realistic and 93% useful.

**Conclusions** The simulator device is a valuable training resource. It should be used in conjunction with currently accepted techniques while further research on optimal management is awaited.

## REFERENCE

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## PL.10 CAN THE INSTITUTE FOR HEALTHCARE IMPROVEMENT "MODEL FOR IMPROVEMENT" REDUCE OBSTETRIC ANAL SPHINCTER INJURIES (OASIS)?

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**Introduction** Dr Foster reported obstetric anal sphincter injuries (OASIS) incidence in Norwich as 3.72% for spontaneous vaginal deliveries and 10.76% for instrumental deliveries against expected incidence of 3.6% and 7.6% respectively. The Norfolk and Norwich Improving Patient Safety (NNIPS) programme is modelled on Leading Improvement in Patient Safety (LIPS) programme (NHS Institute for Innovation and Improvement) which uses the Institute for Healthcare Improvement (IHI) Model for Improvement.

**Setting** UK university teaching hospital delivering 6000 babies annually.

**Aim** To reduce OASIS by 20% within nine months using IHI methodology.

**Methods** The nine month NNIPS programme involved four one day workshops and four mentoring sessions to equip teams with improvement techniques. Methodology employed in this project included:

1. Ishikawa diagram
2. Process mapping
3. Model for Improvement: Plan-Do-Study-Act (PDSA)
4. Statistical process control (SPC) charts for measurement

## Results

1. Ishikawa diagram – identified two issues: diagnosis and prevention.
2. Process mapping identified up to four rectal examinations were required before OASIS diagnosis and no standardised technique of perineal examination. Redundant steps were removed and diagnosis was standardised in PDSA 1 and 2.
3. Prevention: PDSA 3 involved the development of an agreed method of managing the perineum in second stage called "SLOWER." PDSA 4 involved group reflection with midwives.
4. SPC Charts: failed to demonstrate any change in OASIS.

**Conclusion** We were unable to demonstrate any statistical reduction in OASIS although processes improved over the time frame.

## PL.11 WITHDRAWN BY AUTHOR

## PL.12 SHORT TERM CLINICAL OUTCOMES OF NEONATES WITH SEVERE PERINATAL ACIDOSIS: A PROSPECTIVE STUDY

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**Background** Therapeutic hypothermia improves outcomes for asphyxiated infants, however not all infants born with severe acidosis are assessed as eligible for cooling and few data describe short-term clinical outcomes for the whole cohort of babies with severe perinatal acidosis.

**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	1 (0–13)	1 (0–13)	6 (1–13)
Median (range), days			
Age at discharge home	3(0–23)	2 (0–16)	10 (3–23)
Median (range), days			
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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**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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**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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**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.