Oral Presentations

Labour and Delivery

OL.01
'It’s like rocket fuel': Misoprostol vaginal insert versus dinoprostone vaginal insert for induction of labour. Comparison of labour and delivery outcomes in a local UK context
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Objective
We carried out a local audit review of labour and delivery outcomes comparing Mysodelle® (Ferring Pharmaceuticals Ltd, West Drayton, UK) to dinoprostone.

Methods
Using a retrospective cohort design, data were collected on women who were induced with Mysodelle® (n = 100) and dinoprostone (n = 100) in NHS Fife between February 2016 and September 2017.

Outcome measures included difference in:
- mean insertion-to-delivery-interval
- mode of delivery
- incidence of hyperstimulation
- need for additional induction agents
- neonatal admission to NICU

Binary data was analysed using Fisher’s exact test and Wilcoxon rank sum test for continuous data.

Results
Preliminary results show that mean insertion-to-delivery interval in the Mysodelle® group was approximately half that of the dinoprostone group (1051.9 versus 2010.9 minutes; P < 0.0001). Women in the Mysodelle® group were also less likely to require additional prostaglandins (P < 0.0001). There was no difference in intravenous oxytocin use (P = 0.7609). There was significantly more hyperstimulation in the Mysodelle® group (P = 0.0004) however, there was no significant difference in the mode of delivery (0.2035) or neonatal NICU admission (0.7475).

Conclusion
Our preliminary results contribute to the evidence base demonstrating that Mysodelle® reduces the mean insertion-to-delivery interval by approximately 16 hours compared to dinoprostone. Although hyperstimulation was increased, there was no significant difference in delivery mode or neonatal admission rate. Retrospective cohort design comes with inherent concerns regarding potential confounding. However we plan to publish the complete result set in the near future with analyses of outcomes controlled for potential confounders (e.g. initial Calder score and gestation).

OL.02a
Does the operator training level affect the outcome of a rotational delivery
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Objectives
Conclude if training level of delivering doctor, when a labour is complicated by malposition in the second stage, alters the outcome for baby or mother.

Design
National audit of rotational deliveries, assessing if training level affects outcomes of rotational deliveries, we know acquisition and maintenance of rotational vaginal delivery skills reduces second stage caesarean and currently rotational ventouse is the only method assessed in UK training curriculum.

Methods
UK Audit and Research trainee Collaborative in Obstetrics and Gynaecology (UK-ARCOG) network collected data on all births with malposition complicating the second stage during May 2016. Information was prospectively collected, uploaded to Excel and analysed using SPSS® (IBM, New York, USA).

Results
Data was collected on 835 deliveries; 316 by juniors (ST1-5) and 519 by seniors (ST6-7 and consultants). OP babies were more likely to be delivered by seniors (P = 0.06) and juniors were supervised by consultants (46.2%) or ST6-7 (36.9%). Success rate of first instrument (juniors 67.7%, seniors 67.8%) and rates of sphincter injury (juniors 4.8%, seniors 4.3%) were almost identical, but blood loss >1.5 l (5.1% versus 2.9%) and shoulder dystocia (6.3% versus 2.3%) were commoner with juniors.

Conclusion
Comparable outcomes of rotational vaginal deliveries, regardless of training levels, suggest existence of high quality supervision. A recent national survey recognised management of fetal malposition as a training priority for trainees. National data on the feasibility and availability of trainers and training units, are potential areas of future development for a national training programme to incorporate all methods of rotational delivery into the core curriculum.
OL.02b  
**Are fetal and maternal outcomes of obstetric interventions better with occiput transverse or occiput posterior position in the second stage of labour?**  
**Tempest, N.**  

UK Audit and Research Collaborative in Obstetrics and Gynaecology, UKARCOG, Liverpool, UK  

**Objectives** Compare success rates, neonatal and maternal outcomes of women requiring obstetric intervention for a fetus in persistent occiput transverse (OT) position with those in persistent occiput posterior (OP) position.  

**Design** National audit of rotational deliveries, assessing if OT/OP position affects outcomes of rotational deliveries, these high risk procedures require advanced operator skills but no evidence is available to guide decision making of instrumental delivery versus caesarean.  

**Methods** The UK Audit and Research Collaborative in Obstetrics and Gynaecology (UKARCOG) prospectively collected data on all births with OT/OP complicating the second stage of labour (838) in 66 maternity units during May 2016.  

**Results** Data includes 380 OT babies and 410 OP babies (48 unknown). Obstetricians regarded assistance with an operative vaginal delivery method to be safe in 94.9% of babies in OT position and 84.6% of OP babies, with the remainder delivered by caesarean. When vaginal delivery was deemed safe, the first instrument attempted was successful in 74.5% of OT babies and 62.9% of OP babies.  

**Conclusion** Our data facilitates decision making by obstetricians to increase safety of assisted rotational operative delivery of a malpositioned baby at initial assessment. We propose that in high-resource settings within structured training programs, obstetricians can acquire and retain skills to perform rotational vaginal operative deliveries to achieve safe outcomes for baby and mother. A well organised RCT of instrumental delivery against caesarean, when instrumental delivery is safe to proceed to, is urgently required to inform best practise when malpositions are encountered.  

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OL.03  
**Risk of repeat caesarean delivery in 3116 women undergoing trial of labour after caesarean: A population-based cohort study**  
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**Objectives** To investigate the association between indication of first caesarean delivery and cervical dilation at first caesarean during labour and risk of repeat caesarean delivery in women undergoing trial of labour.  

**Design** A population-based cohort study based on electronic medical records of all women delivering in Stockholm and Gotland region between 2008 and 2014.  

**Methods** The population consisted of 3116 women with a first caesarean delivery, undergoing a trial of second labour with singleton infants in cephalic presentation at ≥37 weeks of gestation. Poisson regression analysis was performed with relative risks (RR) and 95% confidence intervals to calculate risk of repeat caesarean delivery by indication for first caesarean.  

**Results** Compared to women with elective first caesarean delivery, women with a first emergency caesarean delivery had higher risk of repeat caesarean delivery (35.7% versus 20.7%, aRR 1.68, 95% CI: 1.47–1.93). In women with a caesarean due to dystocia, increasing cervical dilation in first labour decreased the risk of repeat caesarean in second labour. The rate of repeat caesarean was 54.7% with dilation ≤5 cm, 42.5% with dilation 6–10 cm and 31.4% if fully dilated.  

**Conclusion** Almost 70% of all women eligible for trial of labour after caesarean had a vaginal birth, even women with a history of labour dystocia had a good chance of success. Reaching a greater cervical dilation in the first delivery ending with a caesarean is not in vain, since chances of vaginal birth in subsequent delivery increases with greater dilation.  

OL.04  
**PETRA study: Antenatal corticosteroid use in women with symptoms of threatened preterm labour**  
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**Background** Although antenatal corticosteroids are used to reduce morbidity associated with spontaneous preterm birth (sPTB), there is concern about possible long-term adverse effects and unnecessary administration.  

**Method** We examined steroid use in relation to quantitative fetal fibronectin (qfFN) results and gestation at delivery as part of PETRA, a prospective cohort study of assessment and management of threatened preterm labour (TPTL) in 11 UK hospitals (March 2015–October 2017).  

**Results** Gestation at delivery is currently known for 683/1185 participants, with 18 (2.6%) and 61 (8.9%) delivering at <34 and <37 weeks respectively. Steroid administration data are available for 363 women with 114 (31.4%) receiving steroids. 88.9% (72/81) of cases with qfFN >50 ng/ml received steroids, while 85.1% (240/282) with qfFN < 50 ng/ml did not. As benefits are optimum if birth occurs within 7 days of administration, the table below demonstrates that 251 of 363 (69.1%) were treated appropriately while 112 of 363 (30.9%) were not. Table: Steroid administration by delivery within 7 days.  

**Discussion** PETRA, the largest study of TPTL assessment with qfFN results and gestation at delivery as part of PETRA, a prospective cohort study of assessment and management of threatened preterm labour (TPTL) in 11 UK hospitals (March 2015–October 2017).  

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OL.05
Outcomes for severely obese women admitted to alongside midwifery units in the UK: Results from a national cohort study using the UK Midwifery Study System (UKMidSS)
Rowe, R
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Objectives We aimed to investigate outcomes in severely obese women admitted to alongside midwifery units (AMUs) compared with other women admitted to AMUs.

Design National prospective cohort study.

Method Using the UK Midwifery Study System (UKMidSS), we identified and collected data about all women with booking BMI > 35 kg/m² admitted to the same AMUs. Our composite primary outcome comprised: augmentation, instrumental/caesarean birth, maternal blood transfusion, 3rd/4th degree tear and maternal admission to higher level care. Secondary outcomes included category 1 or 2 caesarean and postpartum haemorrhage (PPH) >1500 ml. We used log Poisson regression to calculate relative risks; all analyses were carried out separately by parity and overall.

Results Overall 1198 severely obese women were reported, with median BMI = 37 kg/m² (range 35.1–56.7) versus 24 kg/m² in the comparison group. Severely obese women were no more likely than comparison women to experience the primary outcome: RRnullip = 1.13 (95% CI = 0.96–1.32); RRmultip = 0.66 (95% CI = 0.42–1.03). In nulliparous women, the severely obese group were more likely to have a category 1 or 2 caesarean (RRnullip = 1.80; 95% CI = 1.06–3.08) and their risk of PPH > 1500 ml was higher (RRnullip = 3.05; 95% CI = 1.28–7.27).

Conclusion Admission of severely obese women to AMUs is widespread with evidence of selection. There is no evidence of increased risk for selected multiparous severely obese women planning birth in an AMU. Severely obese nulliparous women should be advised of the potential increased risks.