

between the healthcare provider and the woman', 'enabling autonomy' and 'avoiding a paternalistic relationship'. Greater information for OVD in antenatal classes was suggested in order to counteract a common theme of negative perceptions of an operative delivery.

**Conclusion** Vulnerability of the women's feelings highlights the importance of non technical skills in ensuring a woman feels trust, is empowered and in control. These non-technical skills need to be taught, learnt and practised to ensure a woman's experience is safe, positive and pays justice to the delight of having a child.

**PL.34 A TWO YEARS AUDIT OF INCIDENCE, RISK FACTOR, MATERNAL AND NEONATAL OUTCOME OF UMBILICAL CORD PROLAPSE AT AL CORNICHE HOSPITAL ABU DHABI UAE**

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T Perveen. Corniche Hospital, Abu Dhabi, United Arab Emirates

To determine the incidence, risk factors, obstetric management, maternal and neonatal outcome of umbilical cord prolapse (UCP) in order to improve the obstetric services

**Methodology** This is retrospective audit of all the cases of Umbilical cord prolapsed at Corniche Hospital during January 2009 and December 2010.

**Results** Twenty three cases diagnosed as umbilical cord prolapse. The hospital based incidence of cord prolapse was 1:760. The mean Dignoses-Delivery Interval (DDI) was 18.5 Minutes. Eleven mothers (47.8%) delivered within this period of time. Eighty two percent women were multiparous. 86.9% were singleton pregnancies while 13.1% were (three sets) of twin gestations. Fifteen pregnancies (65.2%) were of more than 37 weeks of gestations. In 26.15% (n = 6) cases, fetuses were presented as breech. In majority of the case (n = 17) general anaesthesia was given (74%) for emergency caesarean section (LSCS) and in 4 cases (17%) spinal anaesthesia was chosen for caesarean delivery. Twenty two (95.65%) women were delivered by LSCS and one woman had successful vaginal delivery after UCP.

Twenty three babies (80.7%) had apgar score at 5 minutes >7. Umbilical cord PH was done in 65.2% (n = 15) of the cases. Arterial cord PH was recorded as less than 7.2 in 53.3% (n = 8) of the neonates. Sixteen babies required admission to NICU. We had 5 early neonatal deaths (19.2%) in our case series. However, there was no case of stillbirth or HIE directly related to cord prolapse.

**Conclusion** Cord prolapse is a rare but true obstetric emergency associated with high perinatal morbidity and mortality but with quick diagnosis and prompt multidisciplinary team management the outcome can be improved.

**PL.35 OUTCOMES FOLLOWING INDUCTION OF LABOUR(IOL) IN THE EAST OF SCOTLAND**

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M Fawzy, V Balakumar, AE Nicoll. Ninewells Hospital and Medical School, Dundee, UK

**Objectives** To review delivery outcomes for IOL at Term in Ninewells Hospital Dundee and to determine whether maternal factors, indications and gestational age influence outcomes.

**Methods** Data were collected from all IOL at Term between 01/01/11–31/08/12. Information on outcomes was collected from the local maternity database (Torex Protos Evolution).

**Results** 1802/7499 (24%) had IOL. Median age was 29 years (Range = 15–48 years) and median BMI was 25.7 kg/m<sup>2</sup> (Range = 15–66 kg/m<sup>2</sup>). 1020/1802 (56.6%) were primiparous. Median gestational age was 40 weeks (Range 37–43 weeks).

664/1802 (36.8%) of IOL were for post-dates pregnancy, 280/1802 (15.5%) were for prolonged pre-labour rupture of membranes (PROM), 194/1802 (10.7%) were for hypertensive disease, 132/1802 (7.3%) were for suspected fetal growth restriction (FGR) and 106/1802 (5.8%) were for diabetes. 1057/1802 (58.6%) had spontaneous vertex delivery, 360/1802 (19.9%) had operative vaginal delivery (OVD) and 385/1802 (21.3%) had caesarean section (CS). BMI > 30 kg/m<sup>2</sup> was associated with increased risk of CS (RR = 1.23, 95%CI = 1.01–1.50, p = 0.03), and this was independent of gestational age and indication. Women who had IOL for post dates pregnancy had higher rates of CS (RR = 1.25, 95%CI = 1.05–1.50, p = 0.01) and OVD (RR = 1.28, 95%CI = 1.06–1.54, p = 0.01). Women who had IOL for suspected SGA fetus had lower rates of CS (RR = 0.51, 95%CI = 0.31–0.83, p = 0.003) Women who had IOL for PROM had lower rates of OVD (RR = 0.57, 95%CI = 0.43–0.76, p < 0001).

**Conclusion** The majority of women who have IOL at Term will have a vaginal delivery. Nevertheless the risk of operative intervention increases significantly in women who have IOL at 41 weeks gestation and beyond. due to IOL for post dates pregnancy. This data will be useful in counselling women requiring IOL at Term.

**PL.36 CATEGORY 1 CAESAREAN SECTIONS AND DECISION TO DELIVERY INTERVAL: ARE WE MISSING TARGET?**

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S Mustafa, M Wickramasingham, M Abdullah, OA Jibodu. York Teaching Hospitals NHS Foundation Trust, York, UK

**Background** NICE guidelines recommend decision-to-delivery interval (DDI) of 30 minutes for all category 1 Caesarean Sections (Cat1 CS).

**Methods** A retrospective analysis of 50 Cat1 CS carried out in a busy district hospital.

**Results** 44% of all Cat1 CS were done for suspected fetal compromise on CTG, followed by 30% for persistent fetal bradycardia > 6 minutes. 64% deliveries happened during night shift and 34% were undertaken by junior registrars. Decision to perform Cat1 CS was directly taken by consultant in 36% of cases with consultant being first surgeon in 78% of these cases mostly as resident on-call during nights. Mean decision-to-delivery interval was 18.8 minutes with 87% deliveries performed within targeted 30 minutes. 42% of Cat1 CS were performed under general anaesthetic with shortest mean DDI of 14.3 minutes compared to spinal anaesthesia (25 minutes) and epidural top-up (16.7 minutes). 16% had massive PPH > 1.5 litres however average hospital stay was 3 days. 26% babies were admitted to SCBU with 61% being severely acidotic with cord pH < 7.0 or base excess > 12. Mean DDI in these babies was 24 minutes.

**Conclusion** Targeted DDI of 30 minutes is difficult to achieve in 100% of cases. Use of General anaesthesia shortens the DDI interval but has its own implications. Resident on-call consultant night shifts increase direct consultant input and may influence outcomes. A significant number of babies required admission to SCBU with proportion of acidotic babies remaining high. Further measures are required to improve Decision-to-Delivery interval to improve perinatal outcomes.

**PL.37 MATERNAL ADIPOSITY AND CAESAREAN SECTION**

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V O'Dwyer, E Kent, Hogan JLK, C O'Connor, N Farah, MJ Turner. UCD Centre for Human Reproduction, Dublin, Ireland

Maternal obesity and rising caesarean section (CS) rates are important obstetric issues. High visceral fat (VF) is associated with an increased risk of medical conditions outside pregnancy and gestational diabetes mellitus. The purpose of the study was to assess risk

of CS using VF as a marker for maternal obesity and to compare it with Body Mass Index (BMI) as a predictor.

Women were recruited following ultrasound confirmation of a singleton first trimester pregnancy. Maternal VF was measured using Bioelectrical Impedance Analysis (BIA). Maternal BMI was measured. Data was analysed using SPSS.

Of the 3000 women recruited, 2825 women subsequently delivered a baby weighing >500 g. There were 45.9% primigravidas and 17.6% were obese. The CS rate was 21.4%. VF in the 3<sup>rd</sup> and 4<sup>th</sup> quintiles was associated with an odds ratio for CS of 1.6 (95% CI 1.3–2.1) and 2.2 (95% CI 1.7–2.9) respectively ( $p < 0.001$ ). BMI in the 3<sup>rd</sup> and 4<sup>th</sup> quintiles was associated with an OR for CS of 1.5 (95% CI 1.2–2.0) and 2.3 (95% CI 1.7–3.3) respectively ( $p < 0.001$ ). After controlling for parity, previous CS and birth weight the ORs were 1.8 (95% CI 1.3–2.4) and 2.3 (95% CI 1.7–2.1) for the 3<sup>rd</sup> and 4<sup>th</sup> quintiles for VF ( $p < 0.001$ ). The adjusted ORs for CS were 1.6 (95% CI 1.2–2.3) and 2.4 (95% CI 1.7–3.4) when the 3<sup>rd</sup> and 4<sup>th</sup> quintiles for BMI were used.

Maternal obesity is associated with an increased risk of CS. Maternal adiposity measured by BIA is as good a predictor of the risk of CS as BMI.

### PL.38 RECURRENCE RATE OF THIRD DEGREE PERINEAL TEARS AT ST MICHAEL'S HOSPITAL

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DL Davies, R Bahl. *Univeristy Hospitals Bristol NHS Trust, Bristol, UK*

**Introduction** A number of risk factors for third and fourth degree perineal tears or obstetric anal sphincter injury (OASI) have been identified, but the rate of recurrence is not consistent in the observational studies.

**Aim** To assess the rate of third degree tear following an OASI in the first pregnancy in a tertiary referral unit.

**Methods** Data was collected from maternity database, for women diagnosed with an OASI in their first pregnancy who went on to have a subsequent pregnancy at St. Michael's hospital. Data collection period was between 2007–2012. Data was limited to term, singleton, cephalic deliveries in subsequent pregnancy.

**Results** 210 women met the criteria. 63 (30%) had an elective caesarean section and 147 (70%) opted for vaginal delivery. 10/147 (6.8%) required an emergency LSCS. 14/137 (10.2%) women who had a vaginal delivery sustained a further OASI. When comparing the women who had OASI to women who did not sustain an OASI in the subsequent pregnancy, there was no significant difference between the mean birth weights or the mode of onset of labour.

**Conclusion** Over the five year period the recurrence risk of OASI was low. This information can be used to advise women when discussing mode of delivery in subsequent pregnancies. Further research is needed into the pelvic floor symptom profile of the women who have a vaginal birth following an OASI in the first pregnancy.

### PL.39 INCIDENCE AND RISK FACTORS FOR SEVERE PPH: A PROSPECTIVE SOUTH EAST COHORT STUDY (STOP)

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<sup>1</sup>A Briley, <sup>2</sup>G Tydeman, <sup>3</sup>PT Seed, <sup>3</sup>H Ballard, <sup>3</sup>J Sandall, <sup>3</sup>RM Tribe, <sup>3</sup>S Bewley. <sup>1</sup>Guy's and St Thomas' NHS Foundation Trust, London, UK; <sup>2</sup>NHS Fife, Kirkcaldy, UK; <sup>3</sup>King's College, London, London, UK

**Introduction** Postpartum haemorrhage (PPH) is common, rising and treatable (1). Most women are not compromised until estimated blood loss (EBL) exceeds 1000 ml (2). Major PPH remains a cause of maternal death (3) but definitions vary, making comparisons difficult. The Scottish population-based annual audit reported 0.55% incidence of PPH  $\geq 2500$  ml, the highest since inception (4).

**Aims** To ascertain the incidences of severe PPH defined as EBL  $\geq 1000$  ml,  $\geq 1500$  ml and  $\geq 2500$  ml in a prospective cohort from

South East England. To determine risk factors associated with EBL at, and progressing from, these levels.

**Methods** Routine data were imported from 10,213 women delivering in two units 2008–9. All cases with imported EBL  $\geq 1000$  ml and/or identified via blood transfusion services were reviewed. Weighted sampling and chronological stepwise regression analysis were performed. Incidence was compared historically (same geographical population 1997–8) and contemporaneously (Scottish Audit 2009).

**Results** Incidence of PPH  $\geq 1000$  ml,  $\geq 1500$  ml and  $\geq 2500$  ml were 10.1% (95%CI 4.8–6.0), 4.7% (95%CI 3.3–6.1) and 0.8% (95%CI 0.6–1.0) respectively. Historical rate of PPH  $\geq 1500$  ml = 1.12% (95%CI 0.92–1.38). Contemporaneous PPH  $\geq 2500$  ml was 0.55% (95%CI 0.5 to 0.6). Risk factors for severe PPH included BMI, generally unwell without diagnosis, anterior placenta praevia, chorioamnionitis, no labour, physiological 3<sup>rd</sup> stage of labour and interval to suturing. Previous, elective and emergency caesarean section were protective.

**Conclusions** Severe PPH rates are rising rapidly. These demonstrated are comparable with contemporaneous UK data. Risk factors for PPH and severe PPH differ. The underlying causes originate pre-pregnancy, through pre-existing health status and previous obstetric history, some are associated with quality of care.

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### PL.40 ACCESS TO OBSTETRIC SERVICES IN RURAL SUB-SAHARAN AFRICA: A HOSPITAL BASED SURVEY

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<sup>1</sup>RE Harris, <sup>1</sup>LM Staffurth, <sup>1</sup>L Irvine, <sup>1</sup>NL Hezelgrave, <sup>2</sup>S Edmunds, <sup>1</sup>AH Shennan. <sup>1</sup>Division of Women's Health KCL, Women's Health Academic Centre, KHP, London, UK; <sup>2</sup>Hospitali Teule, Muheza, United Republic of Tanzania

**Background** Access to Emergency Obstetric Care (EmOC) is an indicator used to monitor progress towards the achievement of Millennium Development Goals 4 and 5. Lack of access or delay in transportation to hospital is recognised as part of 'The Three Delays Model' and is a major barrier to accessing care for pregnant women living in rural Sub-Saharan Africa.

**Objective** To determine time taken (minutes) by any mode of transport, to reach an obstetric facility by pregnant women in Zambia, Tanzania and Zimbabwe.

**Methods** A structured questionnaire in Swahili was used to interview pregnant women from 20–42 weeks gestation who presented to hospital.

**Results** 750 women were interviewed on the labour ward and antenatal clinics in referral hospitals served by rural antenatal clinics in Zambia (N = 128), Tanzania (N = 246) and Zimbabwe (N = 376). Median gestation was 33.4 weeks (N = 681). 38.8% were primiparous (N = 614). The mean time taken to get from home to obstetric care was 48.3 minutes (IQR = 15–60, median 30). The most common mode of transport was bus (40.6%), followed by foot (30.7%), car (19.3%), bike (9.0%) and other (0.4%) (N = 512).

**Conclusion** In a sample population of antenatal women who successfully reached the referral site during dry season, average time taken to travel from home to hospital was > 48 minutes. In the wet season and for women in remote rural areas, this is likely to be higher. On foot, during an obstetric emergency, this may represent a significant delay. It is vital that maternal health interventions are designed to address this.

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