Background (1) In 1999, the UK DOH Teenage Pregnancy Strategy Plan pledged to reduce the pregnancy rate by 50% in < 18 yrs old by 2010. (2) In 2009, the UK teenage pregnancy rate was 38.3 per 1,000 compared to 54.3 per 1,000 in Barking & Dagenham (high-risk area served by the hospital)
Aim This retrospective cohort study reviewed all viable teenage pregnancies from Jan 1, 2010–Dec 31, 2010.
Method Data were obtained from the Labour Ward, Birth Notification and Operating Theatre Registries.
Results There were 257 teenagers with 260 viable babies > 28 weeks gestation. This included primigravida (230/257) = 89.49% and multiparous (27/257) = 10.51%. The ages ranges from 14–19 yrs (mean = 18.29 yrs). Ten (10/257) 3.89% were < 16 yrs old. There were Instrumental deliveries (29/257) = 11.28%, Caesarean section (36/257) = 14.01%, and Vaginal deliveries (192/257) = 74.71%. The mean fetal birth weights were – Instrumental 3.389 kg +/- SD 0.468 kg, Caesarean 3.106 kg +/- SD 0.752 kg; and Vaginal Delivery 3.117 kg +/- SD 0.501 kg.
Maternal Morbidity Third degree tear (n = 3), Pre-eclampsia (n = 12) & PPH > 1 litre (n = 4)
Fetal Morbidity SCBU admission (n = 7), Stillbirth (n = 3) & Shoulder dystocia (n = 2)
Discussion During 1999–2009 the teenage pregnancy rate fell by only 13.3% in spite of the DOH Teenage Pregnancy Strategy Plan.

1. In this cohort the caesarean rate was lower 14.01% vs 24%, the vaginal delivery higher 74.71% vs 65% but the instrumental was similar 11.28% vs 10% compared to the UK average (Caesarean Section Sentinel Audit).
2. There was a dedicated Teenage Pregnancy Midwifery Team providing continuity of care
3. There were 10.51% (27/257) multiparous teenagers thus contraceptive advice remains crucial, as UK has the highest teenage pregnancy rate in Europe

PP.40 THE POTENTIAL OF DIGITAL MEDIA TO IMPROVE FETAL AND MATERNAL OUTCOMES

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Background Despite both Ireland and the United Kingdom providing free maternity care to all women, adverse fetal and maternal outcomes remain closely linked to social disadvantage and lack of support during pregnancy. A European survey found 42.4% of respondents had limited functional health literacy, closely liked to economic deprivation. Written information remains the main medium of communication for maternity services. It is likely that many of these messages are not adequately communicated to those most at risk.
Objectives This study examined the use of digital media by pregnant women to access healthcare information for pregnancy.
Methods A survey was distributed to all antenatal patients attending clinics at a large Dublin maternity hospital.
Results Of the 218 women surveyed, 81% attended public clinics and 19% attended private clinics, 60% lived in Dublin and 40% were from surrounding counties, 18% were unemployed. Overall 94% used the internet to access information about pregnancy; 100% of unemployed women use the internet to access healthcare information and 75% of women have a smartphone. Newspapers were read by only 29% of women. All women wanted some form of online/digital support during their pregnancy, including weekly text messages about pregnancy stage-specific issues (cited by 45%), a maternity smartphone App (44%) and a website for feedback regarding their care (42%).
Conclusion Digital media use is widespread across all socioeconomic groups. Healthcare communication in pregnancy should focus on digital communication channels.

PP.41 MANAGEMENT OF OBESITY IN PREGNANCY IN THE WEST OF SCOTLAND

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In 2012, a prospective 3-month audit of management of obesity in pregnancy was undertaken in Glasgow and Clyde maternity hospitals comparing practise to CMACE/RCOG guideline.[1] 214 women were identified out of 3,834 deliveries: 138 (64%) had a booking body mass index (BMI) of 35–39 whilst 76 (36%) had a BMI ≥ 40. Out of total deliveries, 3.5% had a BMI of 35–39 and 2.0% had a BMI ≥40.

43 (31%) women took folic acid preconception which increased to 125 (91%) women in first trimester. However, only 2 women took 5 mg preconception and 7 took this during first trimester. Only 4 women had documented evidence of vitamin D supplementation. Hand-held records were available in 197 cases and 193 (98%) women had booking BMI recorded. Anaesthetic review occurred in 68 (89%) women with BMI ≥ 40.

Antenatal thromboprophylaxis was indicated in 43 women, but 11 women received it. Postnatally, all women with BMI ≥ 40 should have thromboprophylaxis, however 50 (66%) received this, out of which 14 women received appropriate dose for weight. Though only 21 (10%) women had glucose tolerance test in BMI 35–39 group, this increased to 44 (58%) women in BMI ≥ 40 group.

44 (58%) women with BMI ≥ 40 had obstetric staff of specialty trainee year ≥6 in attendance at delivery. There is good compliance of guideline with 195 (91%) women having documented active management of third stage and only 1 woman induced for BMI. We conclude that some CMACE/RCOG recommendations have been implemented, though there is much scope for improvement.

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PP.42 INVESTIGATION OF NEONATAL ENCEPHALOPATHY: THE LOST PLACENTAL 'BLACK BOX'

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Background After an aeroplane crash, recovery of the 'black box' is a high priority for investigators; analysis of recorded parameters frequently identifies cause or contributing factors. The placenta likewise provides an invaluable record of the pre-'crash' period in hypoxic ischaemic encephalopathy (HIE); its examination often identifies significant factors such as inflammation or vasculopathy.
Objective To determine the frequency of histopathologic placental examination and chorioamnionitis in a high-risk population of encephalopathic newborns.
Methods We studied neonates ≥36 weeks' gestation admitted with HIE to three tertiary-level UK centres between 01/07/06 and 30/06/11. We assessed if placental histopathological examination was carried out and if there was evidence of chorioamnionitis and/or funisitis.
Results 305 infants were admitted with HIE in the 5-year study period. Placental data were unavailable for 140 outborn infants. Only 50/165 (30%) inborn babies had placentas submitted to pathology. Histopathological examination confirmed chorioamnionitis and/or funisitis in 16/50 (32%) cases.

Conclusion Placental examination serves several vital roles in babies born with suspected HIE: it defines pathophysiology, provides important prognostic information regarding future neurodevelopmental outcome, and shows mitigating factors of medicolegal relevance to causation of brain injury. Intrapartum infection and chorioamnionitis are associated with poor neonatal outcomes including cerebral palsy. Only 30% placentas were examined in our tertiary centres, yet those examinations showed a high incidence of chorioamnionitis. The low rate of placentas being submitted for examination in neonates born depressed, coupled with the high incidence of proven chorioamnionitis in those submitted, is of great concern.

PP.43 PERINATAL OUTCOMES AND TRAVEL TIME TO MATERNITY SERVICES: ANALYSIS OF BIRTH OUTCOME DATA IN WALES FROM 1995 TO 2009

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Objective To study the association between travel time from home to hospital on intrapartum stillbirth and neonatal mortality.
Population All births to women who were resident in Wales between 1995 – 2009 (n = 498,052).
Outcome Measures Intrapartum stillbirth, early and late neonatal mortality.
Methods We calculated the travel time to all hospitals with maternity services based on the grid reference for postcode of mother's place of residence at the time of birth. We used logistic regression to obtain odds ratios for the association between travel time and outcome, adjusted for maternal age, parity, Townsend score for social deprivation and urban/rural location.
Results There were 412,827 singleton births during the study period. The intrapartum stillbirth rate was 0.3 per 1,000 (n = 135); early neonatal death rate 1.5 per 1,000 (n = 609) and late neonatal death rate 0.6 per 1,000 (n = 251). The median travel time to place of birth was 17 minutes IQR (11, 27), and the median distance travelled was 11.7 km. The risk of early neonatal death increased with travel time of at least 45 minutes to place of birth (adjusted OR 1.7 95%CI 1.2, 2.3). In order to explore whether or not birth outcomes were associated with location of maternity services we repeated the analysis using travel time from home to nearest hospital with maternity services and found no association.
Conclusion Although the risk of adverse birth outcomes is increased with longer travel times to the place of birth this is not explained by distance to the nearest hospital with maternity services.

PP.44 STRESS IN EARLY PREGNANCY IN THE AETIOLOGY OF GASTROSCHISIS: AN INCIDENT CASE CONTROL STUDY

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Background Maternal stress is associated with increased risk of spina bifida and anencephaly[1]. We investigated the effect of major stressful life events in the first trimester on risk of gastroschisis, accounting for the mediatory effects of social support and known risk factors such as cigarette smoking, low body mass index and poor nutrition.
Method We analysed data from an incident case control study of pregnant women resident in five UK regions between 01.07.2007 and 28.02.2010. Three controls were recruited for each case. Major stressful life events and social support were assessed using questions from several validated assessment tools, during interviews in the antenatal period. Logistic regression was used to obtain odds ratios for the association between maternal stress and risk of gastroschisis.
Results During the study period, 124 gastroschisis cases were identified by collaborating centres. 73% of cases (n = 91) and 70% of controls (n = 217) were recruited. In the multivariable model including social class of the mother, cigarette smoking, alcohol consumption, body mass index, folic acid and fruit and vegetable consumption, major stressful life events had an independent effect on the risk of gastroschisis (aOR 4.9 95% CI 1.2.19.4). Moving house in first trimester was also an independent risk factor (aOR 4.9 95% CI 1.7.13.9). Lack of social support was found to be a partial mediator for stress.
Conclusion These findings provide new evidence that maternal stress plays a role in the aetiology of gastroschisis, possibly through increased production of corticosteroids that have been shown to be teratogenic in animal models.

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PP.45 PRETERM CAESAREAN SECTION: THE IMPLICATIONS FOR FUTURE OBSTETRIC CARE

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Introduction Preterm birth is the leading cause of neonatal morbidity and is associated with increased rates of operative delivery. Little is known about the impact of preterm caesarean section on mode of delivery and outcome in subsequent pregnancies.
Aim To determine the impact of preterm caesarean section in primips and multips on mode of delivery and obstetric outcome in subsequent pregnancies.
Study design We designed a retrospective review of all deliveries in the Rotunda Hospital from January 1st 2000 to December 31st 2005.

All preterm deliveries (less than 37 weeks gestation) were identified and those requiring caesarean delivery formed the study cohort. All cases with previous operative deliveries were excluded and the remaining cases were reviewed for outcome in subsequent pregnancies.
Results There were 879 preterm caesarean sections during the study period representing 6.6% of all sections over the study period (879/13336).

In total 672 (76.4%) met the inclusion criteria and of these 408 (60.8%) went on to have a further delivery in the hospital. Preterm caesarean section was associated with a vaginal delivery rate of 32 to 44 percent in subsequent pregnancies. There is associated increased neonatal morbidity contributed to primarily by the high incidence of preterm birth in subsequent pregnancies (22.34%). There were also 3 neonatal deaths in subsequent pregnancies in the cohort.

The overall classical caesarean section rate was six percent and there was one caesarean hysterectomy in our cohort.
Conclusions Preterm caesarean section is associated with adverse fetal outcome in subsequent pregnancies.

PP.46 WHAT INFLUENCES A PARENT'S DECISION-MAKING FOR PERINATAL AUTOPSY? A QUALITATIVE INVESTIGATION

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Objectives This study aims to gain insight into parents' perception of autopsy and the decision-making processes.