

**Method** Placental histopathology reports from women who gave birth in Leeds between 22–32 weeks gestation from 2009–2011 were obtained. Relevant maternal and neonatal data were accessed. Intergroup differences and trends were sought using Mann-Whitney *U* and logistic/linear regression analyses where appropriate.

**Results** 269 women were included in the study. 89% of the placentas demonstrated abnormal pathology (infection/inflammation and/or ischaemia/infarction). Smoking and socioeconomic deprivation were associated with an increased incidence of placental infection ( $p = 0.02$ ) and ischaemia ( $p = 0.0001$ ). Babies were born significantly earlier if their placenta demonstrated infection than those whose showed ischaemia ( $p = 0.0001$ ). Neonates born with infected placentas tended to be more likely to have intraventricular haemorrhage than those with ischaemic placentas (adjusted OR 1.9; 95<sup>th</sup> CI 0.5–6.5,  $p = 0.3$ ).

**Conclusion** Intrauterine infection/inflammation is the predominant antecedent of extreme prematurity, and is associated with maternal smoking and socioeconomic deprivation. Further studies need to consider the mechanisms which link these features. (supported by Cerebra)

#### PP57 FETAL MICROCHIMERISM DOES NOT APPEAR TO BE IMPLICATED IN EPITHELIAL OVARIAN CANCER

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**Objective** Ovarian cancer is the second most common gynaecologic cancer, and epithelial ovarian tumours are the most common malignant ovarian tumours. Pregnancy is an important factor in risk reduction and improved survival in epithelial ovarian cancers. Persistence of fetal cells after pregnancy, or fetal microchimerism, has been implicated in some female malignancies such as cervical and breast with different hypothesised roles. In this retrospective study, we aimed to determine if fetal microchimeric cells were involved in the progression of ovarian cancer.

**Study design** We investigated a well-characterised archive of epithelial ovarian tumour paraffin-embedded tissue sections from nulliparous and parous women. Fluorescence in situ hybridisation (FISH) was performed to detect male presumed-fetal cells. The outcome of blinded FISH analysis was correlated with reproductive history and clinic-pathological features of the cohort.

**Results** Fetal microchimeric cells were not detected in archived ovarian tumour formalin-fixed and paraffin-embedded tissue sections from parous women. Male-presumed fetal cells were instead found in sections from two nulliparous women, one of who had a previous miscarriage. Tumour cells were found to have multiple copies of X chromosomes by FISH analysis, and some tumour cells had loss of X chromosome relative to the ploidy level.

**Conclusion** These findings imply that fetal microchimerism does not have a significant role in the progression of ovarian cancer. Instead, fetal microchimerism could have a role in preventing the development of ovarian cancer by sensitising the maternal immune system to develop adaptive immunity against tumour cells that express onco-fetal antigens.

#### PP58 OSTEOPATHIC MANIPULATIVE TREATMENT DURING LABOUR: AN EXPLORATORY STUDY

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**Objective** Osteopathic manipulative treatment (OMT) is an alternative medical practise that focuses on body health by treating the musculoskeletal framework. Its aim is to affect positively the body's nervous, circulatory and lymphatic systems [1].

To date, the use of OMT during labour has been limited [2,3], although its effects are known during pregnancy [4,5].

**Aim** of this exploratory study is to investigate the effect of OMT in a group of women during labour.

**Methods** Of  $N = 119$  women enrolled and in addition to ordinary care,  $N = 57$  received OMT. Endpoints were differences in vaginal tears, Apgar scores and umbilical artery pH levels.

Statistical analysis was based on multivariate regressions, focusing on the independent effect of OMT on primary outcomes.

**Results** Baseline characteristics were balanced in both groups. OMT ( $\beta -0.589$ ; 95% CI  $-0.841$  to  $-0.337$ ;  $p < 0.0001$ ) and episiotomy ( $\beta -1.053$ ; 95% CI  $-1.334$  to  $-0.773$ ;  $p < 0.0001$ ) were significantly associated with a reduction in vaginal tears.

Only OMT was significantly associated to higher Apgar 1 min ( $\beta 0.572$ ; 95% CI  $0.240$  to  $0.903$ ;  $p < 0.001$ ) and 5 min scores ( $\beta 0.465$ ; 95% CI  $0.240$  to  $0.689$ ;  $p < 0.0001$ ).

Risks factors for umbilical pH levels  $< 7.35$  were OMT (OR  $0.363$ ; 95% CI  $0.149$  to  $0.848$ ;  $p = 0.02$ ) and women at second delivery (OR  $0.346$ ; 95% CI  $0.129$  to  $0.918$ ;  $p = 0.03$ ).

**Conclusions** OMT during delivery was found to affect positively vaginal tears, Apgar scores and umbilical pH levels.

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#### PP59 DEVELOPMENT AND PILOT OF HAND HELD PRE-PREGNANCY DIABETES NOTES IN ENGLAND

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**Background** The majority of expectant mothers with diabetes fail to achieve the recommended glycaemic control prior to pregnancy.<sup>1</sup> Suboptimal preparation for pregnancy is known to be associated with adverse outcomes.<sup>2</sup> Our aim was to develop handheld notes to standardise and enhance pre-pregnancy care for women with pre-existing diabetes.

**Methods** A multi-professional group designed the record along national recommendations<sup>3</sup> to encourage early engagement and enhance communication between primary and secondary care. The 6 month pilot of 160 notes was conducted in 13 hospitals and 5 primary care centres.

**Results** The notes are an 8 page document<sup>4</sup> and include a traffic light system to alert women of the preparations needed before starting a pregnancy. They contain prompts and checklists for clinicians to cover the essential information and management plans. Participants included women with type 1 and type 2 diabetes. The majority of respondents were new to preconception services. All participants thought that the notes were very useful in highlighting preparation and control prior to pregnancy. Two thirds felt the

notes helped them to be more involved with planning their care. Most healthcare providers (92%) thought that the notes were helpful in planning care, flowed logically and facilitated documentation.

**Conclusions** Our new pre-pregnancy notes are a useful tool to make women with diabetes aware of the preparations necessary before commencing a pregnancy. Following the success of the pilot, the record is now being introduced in an increasing number of maternity units providing diabetes in pregnancy care.

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### PP60 OUTCOMES OF EXPECTANTLY MANAGED PRETERM PREMATURE RUPTURE OF MEMBRANES BEFORE 28 WEEKS OF GESTATION

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**Objectives** The aim of our study was to define the maternal and fetal outcome following preterm rupture of membranes before 28 weeks of pregnancy.

**Study design** We conducted a retrospective study at tertiary centre, Northern Ireland. The study group included 10 patients with premature rupture of membranes ranging between 14 weeks to 27+6 weeks gestation during the period January 2009–2010 December. The main outcome measured was neonate survival.

**Results** Given the cultural background termination of pregnancy is discussed only if there is threat to maternal life. All women in our group had expectant management. We had one twin pregnancy. 3 women had history of antepartum haemorrhage in the current pregnancy. The latency between rupture of membranes to delivery varied from 1 day to 11 weeks. All women had spontaneous onset of labour. 82% of babies were delivered vaginally of which nearly 56% were vaginal breech delivery. Our take home baby rate was only 45%. There was 3 stillbirth and 3 neonatal death in the group. Unfortunately women with rupture of membranes before 20 weeks of gestation had perinatal mortality of 100%. The main cause of death was prematurity. We also discuss about steroids, newborn resuscitation methods, weight of babies, survival days in case of neonatal death, length of stay mother antenatally, postnatally and of the baby.

**Conclusion** our results are valuable in counselling women with early preterm rupture of membranes. Pregnancy outcomes remain dismal when the fetal membrane ruptures before 20 weeks of gestation.

### PP61 WHAT IS THE APPROPRIATE MANAGEMENT OF A PREGNANT WOMAN WITH RISK FACTORS FOR GESTATIONAL DIABETES (GDM) AFTER AN INCOMPLETE OGTT RESULT?

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**Background** Severe nausea and vomiting are recognised complications of OGTT and the estimated rate of failure to complete the 75 g test protocol has been stated as 2.4%. This scenario leaves clinicians with a dilemma about further management and there are no guidelines on this subject.

**Aims** To analyse the management of pregnant women with risk factors for gestational diabetes whose diagnosis remains unresolved following an incomplete WHO 75 g OGTT and to relate this to outcomes.

**Methods** Retrospective case note reviews of incomplete OGTT cases where fasting levels were normal according to WHO criteria.

**Results** 17 women met the selection criteria. All the women had at least one NICE recognised risk factor for gestational diabetes, the commonest factor being relevant history in a first degree relative [58.8%]. The OGTTs were performed between 26 and 34 weeks gestation and were all incomplete due to severe nausea or vomiting. Subsequently, 53% (9/17) of the women were given dietary advice and carried out blood glucose monitoring for one week before discharged to standard antenatal care, 6% (1/17) continued monitoring for 1 month, 6% (1/17) continued monitoring till the end of the pregnancy and 35% (6/17) were discharged to standard care without any monitoring. None of the women required any further intervention on the grounds of raised glucose levels. They all proceeded to live-births and there were no adverse sequelae directly attributable to GDM.

**Conclusions** Limited monitoring after an incomplete “normal” OGTT in women with risk factors for GDM resulted in no significant increase in adverse sequelae.

### PP62 DEFYING THE BIOLOGICAL CLOCK: WHY ARE UK WOMEN BECOMING MOTHERS LATER?

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Despite warnings regarding increased risks of infertility and poor pregnancy outcomes, more women are delaying childbearing past age 35<sup>1</sup>. Limited empirical research has examined the factors underlying this demographic shift. This study explored views surrounding the timing of childbearing among childless women from North-West England and portrayals of older mothers in the British Media, which is recognised as a powerful influence on health-related behaviours. In-depth qualitative analyses were conducted of: (1) The views and experiences of six women aged between 18 and 24, six women aged between 25 and 34 and six women aged 35 or more and (2) Representations of pregnancy/birth in women over 35, in 839 newspaper/magazine articles and 35 television programmes published or broadcast over a calendar month. Data were managed manually and subjected to thematic analysis. Across groups, women suggested that they were *living within boundaries*, defined by themselves and others; they aspired to *being a great mother or no mother*; and had a *desire to contribute* to family and society, at multiple levels. Personal expectations and social factors contextualised decision making. Media discourses, dominated by celebrity coverage, promoted later motherhood as a means to reconcile expectations of economic and social productivity with being a ‘good mother’. Medical risks were underplayed, reinforcing women’s notions that later motherhood was achievable and acceptable. Effective communication of the risks associated with delayed childbearing challenges professionals and policymakers to expand the current restrictive framing of this issue.

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### PP63 SHOULDER DYSTOCIA – A RISK MANAGEMENT POINT OF VIEW

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