

Abstract PF.42 Table

|     | Down's present | Down's absent | Total |
|-----|----------------|---------------|-------|
| UAC | 10             | 11            | 21    |
| NFM | 23             | 381           | 404   |
|     | 33             | 392           | 425   |

Sensitivity of UAC = 10/33 = 30.3%  
 Specificity of UAC = 381/392 = 97.2%  
 PPV = 10/21 = 47.6%  
 NPV = 381/404 = 94.3%

**Conclusion** We suggest that NFM has a negative association with Trisomy 21 with high NPV and may be helpful in counselling. Furthermore UAC seems to be only associated with Trisomy 21 and no other chromosomal abnormality in this population. We suggest further prospective study of this phenomenon. Abnormalities of cell adhesion molecules (encoded on C21) are well described in Down's (DSCAM – Down's Cell Adhesion Molecule) and this suggests a possible aetiology.

**PF.43** **LOW MATERNAL SERUM PAPP-A IN THE FIRST TRIMESTER AND PREGNANCY OUTCOME: AN EXPERIENCE OVER 3 YEARS**

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**Introduction** Maternal serum PAPP-A (pregnancy associated plasma protein-A) is a part of combined screening. Previous studies have shown correlation between low PAPP-A and adverse pregnancy outcome.

**Objective** The aim of this study is to establish the positive predictive value of low-PAPP-A in prediction of adverse pregnancy outcomes - pre-eclampsia (PET), pregnancy induced hypertension (PIH), delivery of small for gestational age neonates (SGA) and late pregnancy losses.

**Materials and Methods** 16690 women underwent combined screening from 1/8/2008 to 1/8/2011. 326 women with low PAPP-A ( $\leq 0.3$  MoM) were identified (1.95%). The median PAPP-A of the screening population was 1.074 MoM. Within this group of pregnancy with low PAPP-A, maternal serum PAPP-A was compared between the subgroups of adverse pregnancy outcome and normal outcome.

**Results**

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| Cases                 | N   | PAPP-A MoM (Median) | p      | PPV % |
|-----------------------|-----|---------------------|--------|-------|
| Normal outcome        | 146 | 0.255               | -      | -     |
| Adverse outcome       | 95  | 0.225               | 0.004* | 39.4  |
| PET                   | 25  | 0.234               | 0.184  | 10.8  |
| PIH                   | 10  | 0.243               | 0.769  | 4.1   |
| SGA                   | 44  | 0.220               | 0.004* | 21.4  |
| Late pregnancy losses | 15  | 0.191               | 0.024* | 6.6   |

\* Adjusted significance level  $P < 0.0125$  - post hoc Bonferroni correction

**Conclusion** In our screening population, median PAPP-A MoM was higher compared to some previous studies. Maternal serum PAPP-A in pregnancies with adverse outcome was significantly lower than those that resulted in a normal outcome. Compared to the pregnancies with low-PAPP-A but normal outcome, median PAPP-A MoM was significantly lower in pregnancies ending in delivery of

small-for-gestational age neonate (customised BW  $< 10^{\text{th}}$ -centile), and showed a trend towards a decrease in those ending in late-pregnancy losses ( $>24$  weeks).

**PF.44** **WITHDRAWN BY AUTHOR**

**PF.45** **COMPARISON OF ANTENATAL DETECTION RATES OF FETAL ANOMALIES BETWEEN EIGHT TRUSTS IN THE EAST MIDLANDS AND SOUTH YORKSHIRE. ARE THE FETAL ANOMALY SCREENING PROGRAMME TARGETS ACHIEVABLE?**

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**Background** In 2010, the UK Fetal Anomaly Screening Programme (FASP) introduced targets varying between 50% and 98% for the antenatal detection of eleven congenital anomalies\*. Auditing these standards is complex, requiring an understanding of trust size, case mix, the rarity of anomalies, screening uptake and the local obstetric population.

**Aim** To compare antenatal detection rates achieved by eight trusts within the region covered by the East Midlands and South Yorkshire Congenital Anomaly Register (EMSYCAR) between 2010 and 2011.

**Methods** Data were obtained for 651 cases, identified by relevant ICD-10 codes, delivered between 1/1/10 and 31/12/11. Bilateral renal agenesis and 'lethal skeletal dysplasias' were excluded, as the number of reported cases was too small to be reliable. The EURO-CAT\* definition of thirteen 'serious' cardiac conditions was adopted. For those cases detected antenatally, gestational age at diagnosis was recorded, and the booking hospital anonymised. Eight trusts of varying size were analysed.

**Results** Although the vast majority of FASP cases were identified before delivery, only the anencephaly target was met by all eight, while Spina Bifida and Trisomy 18 targets were missed by five. One trust reached only four of nine targets, missing three of the others by a single case. However, **none of the FASP targets was achieved by 20 + 6 weeks.**

**Conclusions** Most trusts met expected antenatal detection rates specified by FASP, but not by  $<20 + 6$  weeks. Considerable variability exists both between trusts and anomalies. Data produced here should enable the precise training needs of each trust to be identified more accurately.

**PF.46** **CHILDHOOD HOSPITAL ADMISSIONS OF CHILDREN CONCEIVED FOLLOWING ASSISTED REPRODUCTIVE TECHNOLOGY**

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The purpose of this project was to compare paediatric hospital admission rates of children conceived via assisted reproductive technology with that of the population as a whole.

Consent-based ART register and admission records were linked and comparisons made between admission rates in the general population and the ART cohort by calculation of standardised admission ratios (SAR's). The project was performed in accordance with HFEA regulations and had ethical approval.

Children conceived via ART had a significantly lower rate of hospital admissions (all admissions and first hospital admissions) than