seven-year period, 174 cases of talipes were identified with 83 being isolated, which were subdivided into mild, moderate and severe classifications. 44 cases were unilateral and 39 were bilateral. The Ponseti technique, which involves serial casts often followed by tenotomy, was used in 85% of mild and moderate cases. Additional surgery was required in 69.3% of bilateral cases and in 60.4% in unilateral cases. In both cohorts surgical soft tissue release was required for in 85% of the unilateral severe and 95% in the bilateral severe groups respectively. In the unilateral group gait abnormalities were present in 22.2% of cases compared with 32.1% of bilateral cases. More severe CTEV resulted in the increased likelihood of gait and functional associations. Five percent of cases with bilateral talipes compared with none in the unilateral group had additional problems (learning and attention issues) at school, which was separate from the orthopaedic abnormality. Overall 92.3% of parents were satisfied with the outcome of postnatal treatment, however counselling regarding management, medium and long-term sequelae of CTEV are of paramount importance.

PF.24 THE PLUTO STUDY: EVALUATION OF THE COST-EFFECTIVENESS OF PERCUTANEOUS VESICOAMNIOTIC SHUNTING (VAS) FOR LOWER URINARY TRACT OBSTRUCTION (LUTO)

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Objective To determine the cost-effectiveness of VAS for LUTO compared to conservative management.
Design A model based economic evaluation based on a decision tree utilising data from the RCT. Deterministic and probabilistic sensitivity analyses were performed.
Setting Fetal Medicine departments (England, Scotland, Ireland, Netherlands).
Participants Pregnant women with singleton, male fetus with isolated LUTO.
Main Outcome Measures Incremental health care costs (ICER) - cost per additional survivor at 28 days; cost per survivor at one year; cost of disability free survival.
Results Insertion of VAS incurred an additional cost of £15,500 per survivor at 1 year, additional cost per disability free life year £43,900. Average healthcare costs for VAS were £21,000 compared to £9,900 for conservative therapy, additional costs occurred mainly through additional surgery and intensive care costs. The ICER per additional survivor at 28 days was estimated as £15,500 and per survivor at one year as £15,400. Taking into account the poor health of many of those who did survive, the ICER per disability free life year with VAS was much higher at about £43,900. Taking account of the uncertainty in data, the ICER could be much higher and thus VAS may be both more costly and less effective than conventional treatment.
Conclusion The health economic analysis suggests that the costs associated with this small gain in disability free life years in the first year of life are high, and are unlikely to be judged cost-effective. Much depends on the long-term survival of those who have reached 1 year.

PF.25 RELATIONSHIP BETWEEN MATERNAL ANTIBODY LEVEL AND FETAL HAEMOGLOBIN CONCENTRATION IN PREGNANCIES COMPLICATED BY RHESUS-D ALLOIMMUNIZATION

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Background Currently, maternal Rh-D antibody levels are primarily used to triage which alloimmunized women warrant enhanced surveillance with middle cerebral artery Doppler. Traditionally, maternal Rh-D antibody levels ≤15 IU/ml have indicated, at worst, mild anaemia and provided reassurance. This threshold has not been widely studied.
Methods A prospective cohort study of all intrauterine fetal transfusions (IUT) for Rh-D alloimmunization performed at our tertiary fetal medicine unit from 1996–2011. Fetal haemoglobin (Hb) levels at the time of IUT were adjusted for gestational age (multiples of median [MoM]) and correlated with the maternal serum Rh-D antibody level taken on the day of IUT, or ≤2 weeks prior to the transfusion.
Results 260 IUTs were performed, of which 195 were for Rh-D alloimmunzation in 82 pregnancies. No significant correlation was demonstrated between fetal Hb and serum antibody levels (Spearman r = 0.08; p = 0.35). Rates of mild (0.65–0.84 MoM), moderate (0.55–0.64 MoM) and severe (<0.55 MoM) fetal anaemia were 32%, 22% and 31% respectively. The sensitivity, specificity, PPV and NPV of a maternal antibody threshold of >15 IU/ml for detecting any fetal anaemia (<0.84 MoM) were 88%, 14%, 85% and 18%. The equivalent results for a threshold of >15 IU/ml detecting moderate-severe anaemia (<0.65 MoM) were 88%, 12%, 52% and 47%. Using a lower antibody threshold of >8 IU/ml, the sensitivity, specificity, PPV and NPV of maternal serum antibody levels detecting any fetal anaemia were 96%, 5%, 85% and 17% respectively.
Conclusion The widely used Rh-D threshold of >15 IU/ml may miss a substantial proportion of cases of fetal anaemia.

PF.26 PRENATAL DETECTION OF STRUCTURAL CARDIAC DEFECTS AND PRESENCE OF ASSOCIATED ANOMALIES: A PROSPECTIVE STUDY OF 1,244 FETAL ECHOCARDIOGRAMS

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Background Our unit offers a comprehensive fetal echocardiograhy service to expectant mothers who are at increased risk of having a fetus with a cardiac defect.
Methods A prospective study from January 2007 to December 2011. Cases of fetal echocardiography were extracted and analysed for referral indication, the presence of extra-cardiac anomalies on ultrasound and, where applicable, the results of invasive testing for fetal karyotype. Indications for fetal echocardiography were classified as abnormal anatomy scan, family history, previously affected child, maternal medical disease (diabetes, epilepsy etc) or other (including IUGR and teratogen exposure).
Results During the 5-year study period 1,244 echocardiograms were performed in our unit, with 242 (19.5%) cardiac defects detected. The most common defects were AVSD (n = 36), VSD (n = 26), transposition (n = 15), tetralogy of Fallot (n = 15), HLHS (n = 27), coarctation (n = 6) and valvular cardiac defects (n = 30). Abnormal mid-trimester fetal anatomy scan was the best indicator for detecting cardiac defects on echocardiography, compared to all other indications (p < 0.0001). Invasive testing for karyotype was performed for 44% of cases, of which 51% were abnormal. 37% (n = 89) of those with a cardiac anomaly also had an extra-cardiac defect. The presence of extra-cardiac defects was associated with a significantly higher rate of abnormal fetal karyotype (p < 0.0001).
Conclusion Most congenital cardiac defects occur in a low risk population, highlighting the importance of the 20-week anomaly