Background Anomalies of the fetal central nervous system (CNS) require considerable expertise. In 2010 we launched a Perinatal Neurosurgical Clinic, wherein fetal CNS anomalies are assessed and counselled by a multi-disciplinary team, comprising a fetal medicine specialist, a paediatric neurosurgeon, a paediatric radiologist and a specialist nurse.

Materials and Methods A prospective review of all patients referred to our clinic from Jan 2010 to July 2012. All cases were triaged initially by a fetal medicine specialist to confirm diagnosis. If warranted, a fetal MRI was obtained prior to referral. Individual patient records were examined to determine pregnancy outcome.

Results Over the study period, 122 fetal CNS anomalies (excluding choroid plexus cysts) were seen. Of these, 41 women (34%) were referred to the Neurosurgical Clinic, including 1 case each of caudal regression syndrome, neuronal migration disorder, sacrococcygeal teratoma, AV malformation, agenesis corpus callosum, cerebellar hypoplasia and thoracolumbar gibbus (*Table*). Median gestation at referral was 30.5 weeks. Three women opted for termination. Of the remaining cases, 53% underwent fetal MRI. In 35%, MRI was considered to alter the diagnosis and counselling. 60% of women underwent caesarean delivery, at a median 38.8 weeks. Excluding 3 cases of holoprosencephaly, the perinatal mortality rate in this high risk cohort was 0%.

Abstract PF.69 Table

Diagnosis	Total	Referred to Perinatal Neurosurgical Clinic
Ventriculomegaly	47	7
Neural Tube Defect	37	18
Holoprosencephaly	10	3
Dandy-Walker syndrome	19	4
Other	9	9
TOTAL	122	41

Conclusion A multi-disciplinary Perinatal Neurosurgical Clinic offers excellent potential, both in expert management of common CNS anomalies, such as neural tube defects, and in the assessment of much rarer fetal CNS anomalies.

PF.70 PRENATAL DIAGNOSIS, MAINTAINING HIGH STANDARDS: REFLECTIONS ON 200 CONSECUTIVE PROCEDURES

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Aims To assess the local compliance for CVS and Amniocentesis, with RCOG Green-top standards[1]. Additionally, examine the indications for prenatal diagnosis, results and outcomes.

Background 1:20 pregnant women in the UK are offered prenatal diagnosis, amounting to 30,000 procedures annually[1]. CVS is offered 11–13 weeks, Amniocentesis from 15 weeks[1]. Type and timing of diagnostic test screening provided. Changes are predicted with adoption of combined first trimester screening for Down's Syndrome[1].

Methods Retrospective case-note audit of 200 consecutive prenatal diagnosis cases, performed by operators in Ormskirk District General Hospital, with 3200 deliveries per annum.

Results 200 procedures (25 CVS, 175 Amniocentesis) performed with continuous ultrasound, by 2 experienced operators, from August 2007 to November 2011. Rate of pregnancy loss following any procedure was 1.7% (3 cases of amniocentesis), and 0.6% loss <14 days of procedure (1 Amniocentesis). All miscarriages were <20 weeks gestation. 5 CVS and 1 Amniocentesis required 2 attempts. Bloodstaining complicated one procedure clinically, and 11 cases were recognised by the lab. 20% CVS and 2.9% of amniocentesis had inadequate sample volumes. Overall culture failure was 1%. 2 women reattended with vaginal discharge, 1 with abdominal pain. There was one liquor leak, and one case of sepsis

Conclusions Introduce continuous audit, with proforma for RCOG standards to be commenced at the procedure. Review results annually, use to inform patients, and develop the prenatal diagnosis service. Continue to train specialist registrars and sonographers, in a supportive environment for competency acquisition.

REFERENCE

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PF.71 WE HAVE DIAGNOSED VENTRICULOMEGALY – WHAT HAPPENS NEXT?

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Ventriculomegaly is defined as dilatation ≥10 mm of the fetal cerebral lateral ventricles on ultrasound at 20 weeks gestation[1 2].

Aim To assess the aetiology and neurological outcomes of ventriculomegaly at a University hospital from 2009–2012.

Methods 35 women with ventriculomegaly were identified on anomaly/fetal medicine scans between 20 to 30 weeks of gestation. They were investigated for aneuploidy, infections and further abnormalities. Long term neurological outcomes including the differences between mild (10–12 mm), moderate (13–15 mm) and severe(≥16 mm) ventriculomegaly in unilateral/bilateral and stable/progressive cases were examined.

Results Ultrasound scanning data:

26 women were offered invasive testing for aneuploidy, it was contraindicated or not appropriate in 9 patients. 5 women accepted invasive testing, 12 declined and 9 are still considering. Karyotyping was normal in all 5 women. 31 women had a negative TORCH screen. 13 women had a fetal MRI scan.

Apgar scores were normal in all babies. 7 out of 18 babies with stable or progressive ventriculomegaly had abnormal cranial USS or MRI postnatally. All babies with mild ventriculomegaly at diagnosis have no developmental abnormalities currently. 2/7 babies with moderate ventriculomegaly and 1/2 babies with severe ventriculomegaly have delayed development.

Abstract PF.71 Table

				Subsequent scans showed		
No. of cases	Size (mm)	Bilateral	Unilateral	Progressive in size	Stable in size	Returned to normal size
17	10–12	9	8	4	6	7
7	13–15	5	2	2	4	1
2	≥16	2	0	2	0	0

(9 babies are undelivered)

Conclusion Ventriculomegaly of >13 mm can indicate a change of prognostic outcome.

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PF.72 POSTERIOR URETHRAL VALVES: AN AUDIT OF CASES PRESENTING AT A FETAL MEDICINE DEPARTMENT SERVING SOUTH WALES

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Introduction Posterior Urethral Valves (PUVs) are the most prevalent congenital anomaly causing bilateral renal impairment due to obstruction. Our audit intends to help us to improve renal counselling for patients with fetuses with PUVs.

Methods Scan details of fetuses with suspected PUVs were located and divided into multiple visits by the same woman. The clinical portal and Protus maternity databases were used to find to outcomes for the pregnancies. Descriptive statistics and Chi Square tests were used to analyse the data.

Results 267 scans recorded on the Fetal Medicine Department database since 2001 aroused suspicion of PUVs. There were 76 individual cases. Most (56.6%) fetuses had enlarged bladders. 31 (40.8%) fetuses had hydronephrosis. 15 (19.7%) women had oligohydramnios; 11 (14.5%) anhydramnios. 43 (56.6%) women were offered renal counselling.

We acquired some outcomes for 56 pregnancies. Outcomes were located for 42 fetuses. 7 pregnancies were terminated. Most ($n = 31$, 55.4%) babies were born vaginally unassisted. Most ($n = 30$, 73.2%) fetuses had no known none-genitourinary malformations, 8 (19.5%) had additional genitourinary anomalies. 71% of surviving children required renal paediatric follow-up; 35.5% had chronic renal failure. Amniotic fluid reduction was correlated with decreased survival. Vesicoamniotic shunts did not affect survival.

Discussion and Conclusions More women require specific renal counselling where PUV is suspected. Our findings reinforce the fact that oligohydramnios is correlated with negative outcomes (probably due to pulmonary hypoplasia), allowing better counselling for these women.

PF.73 WITHDRAWN BY AUTHOR

PF.74 CONJOINED TWINS: A 10 YEAR EXPERIENCE IN A TERTIARY CENTRE

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The incidence of conjoined twins (CT) is reported to be in the range of 1–2 in 100000 pregnancies. Ireland has the highest rate of live birth CT in Europe.[1]

We discuss four naturally-conceived cases presenting to a tertiary-referral centre over 10 years, resulting in livebirths.

Case 1 (2005)

30 year old G2P1 presented with craniophagus CT at 27+1 weeks gestation, proceeding to emergency Classical Caesarean Section (CS) due to polyhydramnios and preterm labour. Live female infants were born at 28+1/40 gestation, but died at 90 minutes of age.

Case 2 (2006)

32 year old G2P1 presented with craniothoracopagus CT at 12+4 gestation, proceeding to emergency Classical CS due to preterm labour at 33 weeks. Liveborn female infants died at 30 minutes of age.

Case 3 (2009)

31 year old G3P2 presented with parapagus CT at 11/40 gestation, proceeding to elective classical CS at 35 weeks out of state. Live male infants were successfully separated at 4 months of age in GOSH, London.

Case 4 (2011)

33 year old G2P1 presented with thoracopagus CT at 13+4 gestation, proceeding to elective Classical CS at 34 weeks. Liveborn female infants died at 91 minutes of age.

In the management of CT, we recommend frequent antenatal review including serial ultrasound, MRI and echocardiography, and multidisciplinary assessment, with neonatology, paediatric surgery, cardiology and bereavement care involved.

Interestingly, all four case parents reside within 20 km of each other. The estimated incidence of CT in this population is 6.3 per 100000.

[1]European surveillance of congenital anomalies: www.eurocat-network.eu/prevdata

PF.75 A REVIEW OF TEN YEARS OF STILLBIRTH DATA FROM A DISTRICT GENERAL HOSPITAL

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111 stillbirths were recorded in the ten year period from 2003 to 2012. The rate of stillbirths for this District General Hospital was 3.5 per 1000. Equal amounts were considered low risk, receiving MLC, to high risk. 56% had had at least one previous delivery with the mode being a parity of one. The ranges for maternal age and BMI were wide, with the mean 30 and 27 respectively. Majority of stillbirths occurred less than 37 weeks (58%), nearly a third below 28 weeks. Twin pregnancies accounted for 6% of the stillbirths.

95% of stillbirths were in the antenatal period, 4 of the 5 intrapartum stillbirths occurred after 39 weeks. A third of the stillbirths were found to be growth restricted. Karyotype analysis was accepted in 97% of cases and was found to be abnormal in 6%. 60% of patients declined post mortem examination adding pressure for answers to be found from the remaining investigations. Thrombophilia results were abnormal in 10% of cases while TORCH screen picked up only 2 infections. Of the 93 placentas sent for histology 89% showed an abnormality. Commonly occurring placental abnormalities included: Maternal vascular under perfusion syndrome, chorioamnionitis, reteroplacental haemorrhage and distal villous immaturity or hypoplasia.

Conclusion Review of stillbirth data is essential to maintaining high standards in all maternity units. Investigations such as TORCH should be used selectively. Placental histology provides the most information for cause and planning in future pregnancies.

PF.76 PREGNANCY OUTCOME AND MANAGEMENT OF FETAL HYPERTROPHIC CARDIOMYOPATHY: A CASE REPORT AND LITERATURE REVIEW

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We report an interesting case of a diabetic pregnancy with fetal hypertrophic cardiomyopathy. The diagnosis was made following an emergency caesarean delivery at 37 weeks for fetal distress and was associated with severe metabolic acidosis and poor apgar scores. The baby was transferred to a tertiary unit at Liverpool Women's