In our first retrospective audit of fifteen obstetric women admitted to ITU over a period of two years, services were assessed using CNST standards 2.9, 4.8, 5.10. This audit highlighted poor documentation and difficulty in identifying evidence. Recommendations were made including defined auditable standards and a named person to ensure compliance. Local guidelines were revised. From recommendations we identified twelve auditable standards. Documentation of clearly defined reason for transfer to ITU, daily multidisciplinary review, SBAR (situation, background, assessment, recommendation) handover, entry level of ITU, length of stay, discharge criteria, outreach follow up and clinical incident form were assessed.

A repeat audit of eight obstetric ITU admissions in next twelve months was completed. Retrospective case notes review was conducted by the same person. Re audit confirmed improved documentation however extracting evidence continued to be difficult.

Numerous national guidance and standards can be confusing however it is possible to identify local auditable standards to improve care and assessment of care.

PM.56 AUDIT OF CARE OF CRITICALLY ILL PREGNANT WOMEN

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Aim To review series of critically ill obstetric patients admitted to ITU and to formulate a guideline for the care of these women.

Background The women who become critically ill during pregnancy should receive the same standard of care for both their pregnancy related and critical care needs, delivered by professionals with the same level of competences irrespective of whether these are provided in a maternity or general critical care setting.¹

Methods Retrospective study of 55 women who were admitted to critical care unit from 01/01/2006 to 31/12/2011. Patients were identified by ITU database.

Results Average ITU stay was 1–2 days in 50% of cases. 92% of patients were admitted postpartum. Massive obstetric haemorrhage (54%), sepsis (13%), Pre eclampsia/HELLP/Eclampsia (11%) and swine flu (5.4%) were the main indications. 55% of the patients were mechanically ventilated. 100% compliance with MEWS chart was observed. The most common interventions were arterial line (64%) and CVP line (35%). VTE assessment on admission to ITU was observed in 65%, dalteparin (74%) and TEDS (74%) of cases. One case of group A streptococcus was seen. Maternal mortality was nil. Debriefing of the family (61%) and debriefing of patient (78%) cases. Datix completed (10%), external transfer (5.4%) cases.

Conclusions Massive obstetric haemorrhage, sepsis and pre eclampsia are the main reasons for admissions.

Recommendations Documentation of patient and family debrief needs to be improved. All these women should be seen in gynaecology follow up clinic for debriefing. Guidelines for critically ill pregnant or recently pregnant women and sepsis in pregnancy and puerperium should be formulated.

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PM.57 REFRACTORY SVT IN THE THIRD TRIMESTER OF PREGNANCY: MANAGEMENT DILEMMAS

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The most frequently encountered arrhythmia, commonest in women of reproductive age, is paroxysmal supraventricular tachycardia (SVT). Atrio-ventricular nodal re-entry and Wolf-Parkinson-White syndrome account for the majority of these (1). Evidence for treatment during pregnancy is scarce due to the lack of research in this group of patients and limited information on the safety of anti-arrhythmic drugs in pregnancy. Much of the current evidence is based on case reports, animal studies, observational studies and clinical experience however, several methods appear to be reasonably safe for the patient and the fetus (2). There is limited evidence regarding the safety and use of DC cardioversion in pregnancy (3,4). Particular consideration is required to be given to the gestation and the risks of delivery when considering the various treatments including choice of routinely used first to third line antiarrhythmic agents and DC cardioversion for the more refractory situations. We describe a case of refractory SVT in a patient with a failed ablation for WPW syndrome presenting in the third trimester of pregnancy. This case highlights several management dilemmas including decisions regarding choice and dose of pharmacological agents, planning a Caesarean section for delivery of fetus prior to DC cardioversion that was required and particularly emphasises good practise with a multidisciplinary team approach at every stage of the management process.

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PM.58 CLINICAL OUTCOMES IN PREGNANT WOMEN NEWLY RECLASSIFIED AS GESTATIONAL DIABETES (GDM) USING IADPSG CRITERIA

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Background There are widespread concerns about the potential resource implications of implementing the International Association of the Diabetes and Pregnancy Study Group (IADPSG) criteria for diagnosing GDM. However, another important consideration is the risks facing undiagnosed cases if the new criteria are not adopted. In our unit, since 2006 we have offered a 3 point OGTT [fasting, 1 & 2 hours]. Hence our projected increase in number of GDM cases is solely related to the lower IADPSG fasting threshold [5.1] and not it's addition of a 1 hr threshold.

Aims To identify women with 75 g OGTT fasting levels between IADSPG and WHO thresholds [5.1–5.9], and normal 1–2 hour levels. To ascertain the extent of diabetes related outcomes in these undiagnosed cases.

Materials and Methods Retrospective study of OGTT results for all women who delivered in our unit between 1st January 2009 and 31st December 2011. Outcome data for 129 selected cases was obtained from our Protos Maternity information system.

Results All deliveries ended in live births but the fetal macrosomia rate (>4 kg) was 30% [39/129]. Using a cut off of 4.5 kg the macrosomia rate was 5.4%. The caesarean section rate for macrosomic babies was 23% [9/39]. Neonatal hypoglycaemia was diagnosed in 6.2% [4/129] of the babies and 3.1% [4/129] needed immediate admission to NICU. However, none of the admissions to NICU were directly related to neonatal hypoglycaemia.

Conclusions The significant incidence of fetal macrosomia in this cohort of women suggests untreated diabetes and potential benefits in adopting IADSPG criteria.

PM.59 AUDIT OF THE MANAGEMENT OF PREGNANT WOMEN WITH EPILEPSY (2011)

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The confidential enquiry into maternal deaths has highlighted 14 deaths in UK due to epilepsy (0.61 per 100,000 maternities). NICE and SIGN have set out guidelines for the management of pregnant women with epilepsy.

We conducted an audit of epilepsy management during pregnancy, comparing the results with national guidance and to a previously conducted audit in the region in 2003.

All pregnant women with epilepsy booked at our medical obstetric clinic were identified, case notes obtained, and data analysed as per our objectives.

Thirty two cases were identified and 30 case notes were obtained. Only 23% had preconception counselling and 60% had pre-pregnancy folic acid. Of these, 77% had 5 mg. Specialist referral was made in 83% of cases. 82% were on antiepileptic drugs (AEDs). Of these, 56% were on monotherapy. 26% received enzyme inducing drugs and of these only 4 (50%) received 20 mg vitamin K at 36 weeks. None of them received double dose steroids. 53% experienced antenatal seizures and in 66%, seizure frequency was reduced or unchanged. Only 20% received anaesthetic review for reasons other than epilepsy. 50% were induced and 66% achieved a vaginal delivery. One fetus was found to have talipes at the anomaly scan. Postnatally only 32% received advice on infant care with epilepsy.

We propose an antenatal proforma for care of pregnant epileptic women. We also propose a postnatal information leaflet advising women on, breast feeding, infant care, importance of AEDs in the postnatal period, contraception and pre-pregnancy folic acid in subsequent pregnancies.

PM.60 EFFECTS OF LMWH PROPHYLAXIS ON THE MORBIDLY OBESE PREGNANT WOMEN

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Background LMWH prophylaxis has been recommended for morbidly obese pregnant women (>40 kg/m²). However, no data exists on the anticoagulant effects of LMWH in this group.

Aim We investigated different dosing regimens; fixed dose versus weight adjusted dose on the anticoagulant effects of the LMWH, tinzaparin used for thromboprophylaxis in obese pregnant women.

Method Twenty morbidly obese pregnant women were started on a fixed dose of tinzaparin (4,500 iu/day) at 30 weeks gestation and then changed to a weight adjusted dose (75 iu/kg/day) for the remainder of their pregnancy. Four hour post dose venous blood were taken after each initial dose and repeated every 2 weeks until delivery. Twenty normal weight women at the same gestation were used as controls.

Result Prior to LMWH prophylaxis, TFPI levels in the obese group at 30 weeks were significantly lower ($p < 0.001$) and ETP and peak thrombin levels in obese group were significantly higher compared with controls ($P < 0.0001$; $P < 0.001$).

Within the obese group, there was no significant difference between ETP levels before and after fixed LMWH dose. However, ETP levels were significantly lower post weight-adjusted dose (75 iu/kg tinzaparin) compared with post fixed dose. There was a significant effect of LMWH on TFPI levels, ($p < 0.0001$). ETP correlated positively with total body weight at fixed dose ($r = 0.578$) ($p < 0.05$).

Conclusion Morbidly obese pregnant women have increased thrombin generation and reduced natural anticoagulant in third trimester. The prothrombotic state in pregnant morbidly obese women was substantially attenuated by weight adjusted but not at fixed LMWH doses.

PM.61 THE USE OF QUANTITATIVE FETAL FIBRONECTIN TO PREDICT OBSTETRIC OUTCOME: A COMPARISON OF A NEW AND ESTABLISHED QUANTITATIVE BEDSIDE ANALYSER IN ASYMPTOMATIC HIGH-RISK WOMEN

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Background Preterm birth (PTB) remains a significant cause of neonatal morbidity and mortality. The most accurate predictors of PTB are ultrasound determined cervical length (CL) and fetal fibronectin (fFN)¹. Quantitative fFN can be used to further outline risk in symptomatic women². New devices are appearing on the market.

Objectives To compare the capacity of two different quantitative fetal fibronectin (fFN) systems to predict cervical shortening in asymptomatic women at high-risk of PTB.

Methods Women underwent CL measurement and fFN testing between 20⁺ and 24⁺ week of gestation in the Preterm Surveillance Clinic at St. Thomas' Hospital (August to November 2012). Fetal fibronectin samples were run using a bedside immunoassay system (10Q system, Hologic, Marlborough) and bedside chemiluminescence system (DryLab, Audit Diagnostics, Ireland).

Results 130 fFN tests were taken from 89 women. Comparison of all test results showed considerable difference between methods (R^2 0.22). A short cervix (<25 mm) was found in 14 women. The 10Q system was able to significantly detect cervical shortening (Area under the curve 0.69, 95% CI 0.57–0.82, $p = 0.002$), however DryLab system could not (AUC 0.52, 95% CI 0.35–0.71, $p = 0.12$). Hologic 10Q had a better positive predictive value than DryLab (29% vs. 22% respectively), but similar negative predictive values (88% vs 87% respectively). Secondary outcomes such as gestational age at delivery will be presented.

Conclusion Quantitative fFN is associated with cervical shortening and therefore risk of imminent preterm birth in asymptomatic women. Not all commercial devices are accurate.

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PM.62 FIVE YEAR RETROSPECTIVE REVIEW OF ANTENATAL LAMIVUDINE (LAM) TO REDUCE THE PERINATAL TRANSMISSION OF HEPATITIS B (HBV)

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