maternal or perinatal complication occurred in women delivered within 48 h of diagnosis or in women diagnosed postpartum.

**Conclusions** HELLP syndrome is associated with severe maternal and perinatal morbidity. Expectant management is rarely used in the UK.

**PM.02** **EFFECT OF 1,25-DIHYDROXYVITAMIN D3 (1.25-D3) ON EXTRAVILLIUS TROPHOBLAST INVASION IN VITRO**
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**Abstract** Within 48 h of diagnosis or in women diagnosed postpartum. It remains to be established whether these indices may be used prospectively, either alone or in conjunction with biochemical markers, for triage and follow-up.

**PM.03** **RELATIONSHIP BETWEEN FETAL GROWTH, CARdiovascular ADAPTATION AND BIRTH WEIGHT**
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Maternal cardiovascular adaptation in pregnancy is necessary for optimal fetal growth. The objective of this study was to explore the relationships between growth rate, fetal size at 10–14 weeks, birth weight and maternal cardiovascular adaptation in pregnancy.

This was a prospective study of 143 women planning to conceive. Crown rump length (CRL) was measured in 71 viable pregnancies at 6–7, 8–9 and 10–14 weeks in 1st trimester and biometry was performed at 22–24 and 32–34 weeks. First and 2nd to 3rd trimester growth rates were calculated. Cardiovascular assessments were performed pre-pregnancy; at 6–7 weeks, in 2nd and 3rd trimesters. We examined the relationships between 1st trimester CRL growth rate, CRL z-score at 10–14 weeks, 2nd to 3rd trimester fetal growth rate, birth weight z-score and cardiovascular adaptation.

First trimester fetal growth and CRL z-score were not related to 2nd to 3rd trimester fetal growth rate (P = 0.2, P = 0.4) nor to birthweight z-score (P = 0.5). However, 2nd to 3rd trimester fetal growth rate was positively correlated to birthweight z-score (p = 0.758, P < 0.001). Amongst the maximum cardiovascular changes the preg-nancy to 2nd trimester increase in cardiac output (CO) was significantly correlated to birthweight z-score (p = –0.257, P = 0.05).

Pregnancy induced cardiovascular changes by 2nd trimester may ‘drive’ later pregnancy fetal growth and birthweight. Contrary to previous reports based on assumption of growth on a single CRL measurement at 10–14 weeks, birthweight was not related to 1st trimester growth, but was related to 2nd to 3rd trimester fetal growth and maximum increase in CO by 2nd trimester.

**PM.04** **CARDIOVASCULAR INDICES IN THE EARLY IDENTIFICATION OF PRE-ECLAMPSIA IN WOMEN AT HIGH-RISK FOR HYPERTENSIVE DISORDERS OF PREGNANCY**
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**Abstract** Biochemical markers such as PlGF have been proposed as point-of-care tests for the early identification of women at risk of hypertensive disorders. The aim of this study was to ascertain whether biological markers are similarly predictive for the subsequent development of pre-eclampsia.

**Objective** This was a prospective study of women presenting in the third trimester of pregnancy to the day assessment unit with non-proteinuric hypertension and suspected diagnosis of preeclampsia. Stroke volume index (SVI), cardiac index (CI), systemic vascular resistance index (SVRI), pulse wave velocity (PWV), aortic augmentation index (AIx) and uterine artery Doppler mean pulsatility index (Pl) were measured at recruitment. Comparisons of medians between groups were performed using Mann Whitney tests.

**Results** A total of 102 women took part in the study and 42 women developed hypertensive disease in pregnancy. At presentation, compared to those who remained normotensive, women who develop hypertensive disease in pregnancy have significantly higher SVRI (5291 vs 1651 dynes – sec/cm–5/m2, P < 0.001), aortic AIx (18.0 vs 9.05%, P < 0.001), PWV (8.41 vs 7.70 m/sec, P = 0.005) and uterine artery Doppler mean PI (0.87 vs 0.77, P = 0.044). However they had significantly lower heart rate (79.8 vs 87.3 beat/min, P = 0.006), CI (2.86 vs 3.83 L/min/m2, P < 0.001) and SVI (37.5 vs 45.3 ml/m2/beat, P = 0.01).

**Conclusion** Women who subsequently develop pre-eclampsia have distinct cardiovascular indices that may help discriminate them from those at high-risk of pre-eclampsia who remain normotensive. It remains to be established whether these indices may be used prospectively, either alone or in conjunction with biochemical markers, for triage and follow-up.

**PM.05** **POSTPARTUM DYSLIPIDAEMIA IN WOMEN DIAGNOSED WITH GESTATIONAL DIABETES MELLITUS**
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**Abstract** Outside of pregnancy diabetes mellitus is an accepted risk factors for cardiovascular disease which should prompt screening for dyslipidaemia in adults.
Objective This prospective study examined the prevalence of dyslipidemia in postpartum women diagnosed with gestational diabetes mellitus (GDM).

Methods Women with GDM were reviewed 6–8 weeks postpartum. A fasting lipid profile was performed. Clinical details were recorded from the medical records, including the woman’s weight and body mass index (BMI) measured at her first antenatal visit.

Results Of the 98 women studied, the mean age was 33.0 years (range 25–45 years) and 30.6% (n = 31) were primigravid. The mean BMI was 30.6 kg/m² and 52% (n = 51) were obese. The overall prevalence of dyslipidemia was 52% (n = 51). Total cholesterol was raised in 44% (n = 43), low-density lipoprotein was raised in 38% (n = 32) and triglycerides were raised in 16% (n = 16). Of the 51 women with dyslipidemia, 73% (n = 37) had more than one abnormality in their lipid profile. The prevalence of dyslipidemia was 78% (n = 14) in women with moderate to severe obesity (BMI > 34.5 kg/m²) compared with 50% (n = 22) in non-obese women (p < 0.0001). Of the 5 women with an abnormal GTT postpartum, 80% (n = 4) had an abnormal lipid profile.

Conclusion Women with an abnormal GTT in pregnancy should be screened for dyslipidemia postpartum at the time of their repeat GTT, and if the lipids are abnormal they should be offered cardio-protective interventions and ongoing monitoring of their lipid profile.

PM.06 LOW MOLECULAR HEPARIN WITHIN THE UTEROPLACENTAL UNIT

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PM.07 A PROSPECTIVE STUDY OF CHANGES IN MATERNAL CARDIOVASCULAR AND METABOLIC FUNCTION FROM PRIOR TO PREGNANCY TO POSTPARTUM

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PM.08 METFORMIN, GLYCAEMIC CONTROL AND POSTNATAL GLUCOSE-TOLERANCE-TESTING IN WOMEN WITH GESTATIONAL DIABETES

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