

pulse, BP and baseline bloods (FBC, U&Es, Clotting, ABGs, G&S) monitored. Checking of capillary refill time (13.8%), administration of high-flow oxygen (12.5%), blood cultures (87.5%), electrocardiograms (37.5%) and fluid balance monitoring (56.3%-81.3%) need to be performed more frequently. 16 patients had SPE. Baseline bloods (FBC, U&Es, urate, LFTs & G&S), administration of ranitidine and catheterisation were performed in all patients. Of concern are: checking of clotting screen (87.5%), blood pressure monitoring after administration of antihypertensives (33.3%-46.2%) and observations after Magnesium sulphate prescribing (25%). 37 patients had PPH > 1.5 L. Measures with 100% compliance were: the 'ABC' cheque, administering IV fluids and measuring FBC. Weighing blood loss, establishing intravenous access and administration of high-flow oxygen and warmed fluids (32.4%-54%) need to be performed more often.

**Conclusion** Many aspects of the guidelines are adhered to, but areas of concern must be improved in order to optimise patient care and outcome.

#### PM.16 ULTRASOUND COLOUR-FLOW DOPPLER IN INITIAL ASSESSMENT OF MORBIDLY ADHERENT PLACENTA FOLLOWED BY SELECTIVE MR IMAGING: A CASE SERIES

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Morbidly adherent placenta (MAP) is the abnormal attachment of the placenta to the uterine wall in which trophoblastic cells invade the uterine tissues. MAP is rare, affecting 1 in 2500 pregnancies<sup>1</sup>, however it is associated with high fetomaternal morbidity and mortality<sup>2</sup>. Previous caesarean section is a major risk factor for development of MAP<sup>3</sup>, and complicates 24% of cases of placenta praevia after one prior caesarean section<sup>4</sup>. With the current trend of increasing caesarean section rates<sup>5</sup>, MAP will pose significant obstetric problems in the future.

Antenatal diagnosis of MAP has been shown to reduce maternal morbidity<sup>6</sup>. Recent guidance from the National Institute for Clinical Excellence suggests that in cases where there is suspicion of MAP, colour-flow Doppler ultrasound should be used as a first line diagnostic tool<sup>7</sup>. Presence of irregular lacunae within the placental architecture and loss of the clear space in the retroplacental plane are considered to be useful diagnostic criteria in ultrasound imaging of MAP<sup>8</sup>. Where such ultrasound changes are found, magnetic resonance imaging (MRI) can then be considered to confirm diagnosis and evaluate the extent of invasion which would aid management planning<sup>6</sup>.

We present a case series of 6 patients presenting to York Teaching Hospital in whom MAP was queried on the basis of previous caesarean section, placental localisation scan or clinical presentation. We discuss the role of colour-flow Doppler ultrasound in the initial assessment of suspected MAP followed by selective use of MRI.

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#### PM.17 IMPACT OF MATERNAL OBESITY ON ACCURACY OF SONOGRAPHIC FETAL WEIGHT ESTIMATION IN IUGR

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**Objective** The objective of this analysis, as part of the multicentre prospective PORTO Trial, was to determine whether increasing maternal BMI decreases the accuracy of sonographic fetal weight estimation in IUGR pregnancies.

**Study design** The PORTO Trial recruited 1,118 consecutive ultrasound-dated singleton IUGR pregnancies, defined as EFW < 10<sup>th</sup> centile. Maternal BMI was recorded at booking and divided into 4 subcategories. Accuracy of fetal weight assessment was defined as difference between EFW within 2 weeks of delivery and actual birthweight.

**Results** Of the 1,076 recruited patients with complete records, 693 (64%) were of normal weight (BMI < 25), 258 (24%) were overweight (BMI 25-30), 93 (9%) were obese class I (BMI 30-35) and 32 (3%) were obese class II (BMI 35-40) (Table 1). Overall, fetal weight estimation prior to delivery was within 6% of respective birthweight. EFW was not influenced by increasing maternal BMI and EFW accuracy was only marginally better in normal weight mothers. Greater BMI was associated with earlier gestational age at delivery.

**Conclusion** These data show that ultrasound is reliable in the assessment of fetal weight in IUGR in the presence of increased maternal BMI.

**Abstract PM.17 Table 1 Outcomes for BMI Categories.**

	Normal weight	Overweight	Obese Class I	Obese Class II	p-value
Mean GA at delivery (weeks)	38.1	37.5	37.2	35.5	<0.0001
Birthweight (g)	2543	2473	2414	1989	0.0055
EFW (<2 weeks of delivery)	2426	2307	2317	1984	0.0011
Median % difference	6.3%	6.4%	5.9%	6.6%	0.9828

Note: P-value compares BMI < 25 to BMI > 25

#### PM.18 MATERNAL RESTING PERIPHERAL BLOOD FLOW AND TISSUE OXYGENATION IN PREGNANCIES COMPLICATED WITH PRE-ECLAMPSIA AND IUGR

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**Background** Pre-eclampsia is characterised by hypertension and proteinuria and associated with systemic hypoperfusion of multiple maternal organs. Intrauterine growth restriction (IUGR) is a recognised complication of pre-eclampsia and the two conditions