

**97 Magnesium sulfate exposure and neonatal intensive care unit admission**Anna Girsén<sup>1</sup>, Mara Greenberg<sup>2</sup>, Yasser El-Sayed<sup>2</sup>, Brendan Carvalho<sup>2</sup>, Deirdre Lyell<sup>2</sup><sup>1</sup>Oulu University Hospital, Obstetrics and Gynecology, Oulu, Finland, <sup>2</sup>Stanford University/Lucile Packard Children's Hospital, Obstetrics and Gynecology, Stanford, CA**OBJECTIVE:** To examine the effect of antenatal magnesium sulfate (MS) treatment on neonatal intensive care unit (NICU) admission among term newborns of mothers with preeclampsia.**STUDY DESIGN:** Secondary analysis of the Maternal-Fetal Medicine Unit Network Cesarean Registry including primary and repeat cesareans, and failed and successful vaginal births after cesarean delivery. Singleton pregnancies among women with preeclampsia and >37 weeks of gestation were included. Pregnancies with chorioamnionitis were excluded. Logistic regression analysis was used to determine associations between MS exposure and important outcomes.  $P < 0.05$  was considered statistically significant.**RESULTS:** 2224 pregnancies of women with preeclampsia were included, of whom 1,795 (81%) received MS for eclampsia prophylaxis and 429 (19%) did not. MS exposure was associated with increased NICU admission (23% vs. 14% unexposed,  $p < 0.0001$ ) whereas no significant difference was found in the length of newborn stay in NICU (median 5 days (range 2-91) vs. 6 days (range 3-37) in unexposed,  $p = 0.45$ ). MS-exposed women were more likely to receive public insurance (51% vs. 40% unexposed,  $p = 0.0008$ ) and have a labor induction (43% vs. 9% unexposed,  $p = 0.02$ ), and less likely to be Caucasian (23% vs. 31% unexposed,  $p < 0.0001$ ), be diagnosed with chronic hypertension (7% vs. 9% unexposed,  $p = 0.04$ ), or undergo cesarean delivery (90% vs. 94% unexposed,  $p = 0.03$ ). MS-exposed newborns had significantly lower birthweights (3288 vs. 3442 grams unexposed,  $p < 0.0001$ ) and similar gestational ages at delivery (39.2 vs. 39.1 unexposed,  $p = 0.11$ ). Logistic regression analysis adjusting for receipt of public insurance, race, chronic hypertension, labor induction, cesarean delivery, birthweight and gestational age found that NICU admission was significantly associated with MS exposure [OR 2.60, 95% CI 1.68-4.20,  $p < 0.0001$ ].**CONCLUSION:** Antenatal magnesium sulfate treatment is associated with an increase in NICU admission among exposed term newborns of mothers with preeclampsia.**98 Maternal obesity and the risk of postpartum hemorrhage**Annelee Boyle<sup>1</sup>, Julia Timofeev<sup>1</sup>, Maisa Feghali<sup>1</sup>, Sameer Desale<sup>2</sup>, Menachem Miodovnik<sup>1</sup>, Rita Driggers<sup>1</sup><sup>1</sup>MedStar Washington Hospital Center, Obstetrics and Gynecology, Washington, DC, <sup>2</sup>MedStar Health Research Institute, Biostatistics and Epidemiology, Hyattsville, MD**OBJECTIVE:** To determine if overweight and obese women are at increased risk of postpartum hemorrhage (PPH) and, if so, if the risk of PPH correlates with the degree of obesity.**STUDY DESIGN:** A retrospective cohort analysis of data in the MedStar PeriBirth labor database from 2009 to 2012. Overweight women [body mass index (BMI) 25.0-29.9 kg/m<sup>2</sup>], obese women (BMI 30.0-39.9 kg/m<sup>2</sup>), and extremely obese women (BMI  $\geq 40.0$  kg/m<sup>2</sup>) were compared to women of normal weight (BMI 18.5-24.9 kg/m<sup>2</sup>) who delivered a singleton pregnancy at term (37.0-41.9 weeks' gestation). Women were classified by pre-pregnancy BMI. Postpartum hemorrhage was defined as an estimated blood loss of >500 ml following vaginal delivery or >1,000 ml following Cesarean delivery. Multivariate analysis was performed controlling for maternal age, race, parity, mode of delivery, fetal macrosomia (>4,000 grams), polyhydramnios, magnesium sulfate administration, clinical chorioamnionitis, mode of delivery, and episiotomy.  $\chi^2$  and Fisher's exact tests were used for categorical variables. Statistical significance was set at a  $p$ -value of  $< 0.05$ .**RESULTS:** A total of 6,865 women were included in the analysis: 788 (11.5%) had normal BMI, 2,161 (31.5%) were overweight, 2,965 (43.2%) were obese, and 951 (13.8%) were extremely obese. Extremely obese women were significantly more likely to experience PPH than women of normal weight [OR 1.8, 95% confidence interval (CI) 1.05-3.12,  $p = 0.0328$ ]. There was no significant difference among overweight (OR 1.2, 95% CI 0.73-2.01,  $p = 0.4620$ ) or obese women (OR = 1.2, 95% CI 0.74-1.99,  $p = 0.4392$ ) compared to women of normal weight.**CONCLUSION:** Extremely obese women are at a higher risk of postpartum hemorrhage compared to women with normal BMI. Even a modest decrease in pre-pregnancy BMI can reduce this risk.**99 Obstetrical outcomes in women with epilepsy enrolled in the North American Antiepileptic Drug Registry (NAAPR)**Autumn Klein<sup>1</sup>, Hillary Keenan<sup>2</sup>, Robert Mittendorf<sup>3</sup>, Sonia Hernandez-Diaz<sup>4</sup>, Page Pennell<sup>5</sup>, Nichelle Llewellyn<sup>5</sup>, Caitlin Smith<sup>6</sup>, Lewis Holmes<sup>6</sup>, Thomas McElrath<sup>7</sup><sup>1</sup>University of Pittsburgh Medical School, Neurology and Obstetrics and Gynecology, Pittsburgh, PA, <sup>2</sup>Joslin Diabetes Center, Genetics and Epidemiology, Boston, MA, <sup>3</sup>Loyola University, Obstetrics and Gynecology, Chicago, IL, <sup>4</sup>Harvard School of Public Health, Epidemiology, Boston, MA, <sup>5</sup>Harvard Medical School, Neurology, Boston, MA, <sup>6</sup>Harvard Medical School, Pediatrics, Boston, MA, <sup>7</sup>Harvard Medical School, Obstetrics and Gynecology, Boston, MA**OBJECTIVE:** Little is known about obstetrical and neonatal outcomes in women with epilepsy (WWE) taking antiepileptic drugs (AEDs). This study aims to determine the rate of C-section (CS) in WWE on AEDs compared to women without epilepsy not taking an AED (WWoE) and to determine if there is an indication for CS, including seizure.**STUDY DESIGN:** The NAAPR, which began in 1997, is a voluntary call-in registry of pregnant women taking AEDs. Participants are asked a series of questions twice during pregnancy and once postpartum. We determined how many WWE and WWoE reported having a CS and classified their responses into different indications. WWE were compared to WWoE.**RESULTS:** There were 6,253 WWE reporting AED use at the time of last menstrual period and 469 WWoE. WWE were slightly younger ( $29.5 \pm 5.4$  v.  $31.5 \pm 4.1$  years) ( $p < 0.001$ ) and were less likely to have had a previous delivery (parity  $0.8 \pm 0.9$  v.  $1.0 \pm 0.9$ ,  $p < 0.001$ ), but were likely to have had an equal number of pregnancies (gravidas  $2.2 \pm 1.3$  v.  $2.3 \pm 1.3$ ,  $p = 0.1$ ). WWE were more likely to report smoking during the first trimester (14.1% v. 6.8%,  $p < 0.05$ ). There was a higher proportion of whites among WWoE ( $p < 0.001$ ), and the most common AEDs were lamotrigine (26.1%) followed by carbamazepine (22.9%). A total of 34.5% of WWE had a CS as compared to 29.8% of WWoE ( $p = 0.05$ ), but when adjusted for age, parity and pre-existing hypertension, these findings are no longer significant (OR: 1.03 95% CI: 0.54, 2.0,  $p = 0.9$ ). Of WWE, 10.5% reported seizure as a reason for their CS.**CONCLUSION:** There is borderline difference in the rate of CS between WWE and WWoE when adjusted for the confounders of age, parity, and pre-existing hypertension. Seizure was reported as an indication for CS in a significant number of WWE and suggests that WWE may benefit from specialized multi-disciplinary care at larger hospitals. Future studies will examine other obstetrical and neonatal outcomes including CS and SGA by AED.**100 Comparing estimated fetal weight by ultrasound and clinical assessment with actual birthweight**Benjamin Solomon<sup>1</sup>, GERALYN O'Reilly<sup>1</sup>, Pedro Arrabal<sup>1</sup>, David Schwartz<sup>1</sup>, Stephen Contag<sup>1</sup><sup>1</sup>Sinai Hospital of Baltimore, Obstetrics and Gynecology, Baltimore, MD**OBJECTIVE:** To evaluate if there is a significant difference between two antepartum methods of estimating fetal weight immediately before birth and the actual birthweight.