

# **LSU School of Medicine**

## **Department of Obstetrics & Gynecology**



## **Resident Research Day**

### **Friday, May 16, 2025**

**Center for Advanced Learning & Simulation**  
**2021 Perdido Street**  
**New Orleans, LA**

#### **Keynote Speaker:**

**Jody Steinauer MD, PhD**

Distinguished Professor of Family Planning and Reproductive Health  
Director, Bixby Center for Global Reproductive Health  
Director, Ryan Residency Training Program in Family Planning  
University of California San Francisco  
Zuckerberg San Francisco General Hospital

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**Jody Steinauer MD, PhD**

*Professor, Family Planning and Reproductive Health  
Director, Bixby Center for Global Reproductive Health  
Director, Ryan Residency Training Program in Family Planning  
University of California San Francisco  
Zuckerberg San Francisco General Hospital*

**Bio:** Dr. Jody Steinauer (she/her) is the Philip Darney Distinguished Professor of Family Planning and Reproductive Health in the Department of Obstetrics and Gynecology at University of California, San Francisco. She directs the UCSF Bixby Center for Global Reproductive Health, a multidisciplinary center integrates research, training, clinical care, and advocacy to advance reproductive autonomy, equitable and compassionate care, and reproductive and sexual health worldwide. She is also the Director of the Ryan Residency Training Program, a US program to support obstetrics and gynecology residency programs to integrate family planning. She provides comprehensive obstetrics and gynecological care, including abortion care at San Francisco's County Hospital in California and at a freestanding clinic in the state of Kansas. She focuses her educational research on family planning training and teaching patient-centered care.

# LSU OBGYN Resident Research Day

## Friday, May 16, 2025

- 8:15-8:20am**      **Welcome & Introduction of Guest Speaker**  
Lisa Peacock MD, FACOG  
Chairperson, Department of Obstetrics and Gynecology
- 8:20-9:20am**      **Keynote Address – *Training the Next Generation After Dobbs***  
Jody Steinauer MD, PhD  
Professor, Family Planning and Reproductive Health  
Director, Bixby Center for Global Reproductive Health  
Director, Ryan Residency Training Program in Family Planning  
Department of Obstetrics, Gynecology and Reproductive Sciences  
University of California San Francisco
- 9:20-9:30am**      **Break**
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### SESSION 1

Moderators: Jaime Alleyn MD & Sarah Buzhardt MD

- 9:30-9:45am**      ***Effectiveness of abdominal circumference alone compared to estimated fetal weight in the diagnosis of fetal growth restriction***  
Resident: Catherine Shield MD, PGY 3, Baton Rouge  
Advisor(s): Pamela Simmons DO/MPH and Neelima Sukhavasi MD/MPH
- 9:45-10:00am**      ***Impact of Integrating Psychiatric Care into High-Risk Obstetrical Care***  
Resident: Alexandra Thomas MD, PGY 4, New Orleans  
Advisor: Tabitha Quebedeaux MD/MPH
- 10:00-10:15am**      ***Stage I Hypertension and Aspirin Use in Pregnancy***  
Resident: Keiko Leong MD/MPH, PGY 4, New Orleans  
Advisor: Tabitha Quebedeaux MD/PhD
- 10:15-10:25am**      **Break**
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### SESSION 2

Moderators: Neelima Sukhavasi MD/MPH & La’Nasha Tanner MD

- 10:25-10:40am**      ***Comparative Analysis of Frozen Embryo Transfer Protocols in Patients with and without Ovulatory Dysfunction***  
Resident: Juan Naranjo MD, PGY 3, New Orleans  
Advisor: Jay Huber MD/PhD
- 10:40-10:55am**      ***Systematic Review and Meta-Analysis of Administration of Liposomal Bupivacaine for Opioid Reduction After Cesarean Delivery***  
Resident: Madelyn Roberson MD, PGY 3, Baton Rouge  
Advisor: Edward Schwartzenburg MD and Neill Chappell MD/MSCI

<b>10:55-11:10am</b>	<b><i>Oligohydramnios as a Potential Risk Factor for Postpartum Readmission for Hypertensive Disorders of Pregnancy</i></b> Resident: Rachel Denneny MD, PGY 4, New Orleans Advisor: Tabitha Quebedeaux MD/PhD
<b>11:10-11:25am</b>	<b><i>Outcomes of Expectant, Medical, and Surgical Management of Early Pregnancy Loss</i></b> Resident: Sylvia Lobo MD, PGY 4, New Orleans Advisor: Jaime Alleyn MD
<b>11:25-11:35am</b>	<b>Break</b>

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### **SESSION 3**

Moderators: Elizabeth Florence MD & Antonia Traina MD

<b>11:35-11:50am</b>	<b><i>Effect of Residential Location and Natural Disaster Experience on Adverse Pregnancy Outcomes</i></b> Resident: Jordan Spencer MD, PGY 4, Baton Rouge Advisor: Neelima Sukhavasi MD/MPH
<b>11:50am-12:05pm</b>	<b><i>Maternal Obesity and its Impact on Successful Induction of Labor</i></b> Resident: Jonte Ellison MD, PGY 4, New Orleans Advisor: Tabitha Quebedeaux MD/PhD
<b>12:05-12:20pm</b>	<b><i>Opioid Use in Third Trimester of Pregnancy and Neonatal Morbidity and Mortality</i></b> Resident: Aleysh Alejandro Ayala MD, PGY 3, Baton Rouge Advisor: Neelima Sukhavasi MD/MPH

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<b>12:20-1:15pm</b>	<b>Lunch</b>
<b>1:15pm</b>	<b>Group Pictures</b>
<b>1:30pm-2:15pm</b>	<b>POSTER SESSION</b>
<b>2:15pm</b>	<b>Awards and Final Remarks</b>

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### **Judges**

Hunter Collins PhD – Woman's Hospital Department of Scientific Research  
 Jay Mussell PhD – LSUHSC Department of Cell Biology and Anatomy  
 Lisa Peacock MD, FACOG – LSUHSC Department of Obstetrics and Gynecology  
 Jodi Steinauer MD, PhD – UCSF Department of Obstetrics, Gynecology and Reproductive Sciences

Full abstracts and a list of posters are provided on the following pages.  
 Posters are numbered for ease of viewing in the observation hall.

# Effectiveness of Abdominal Circumference Alone Compared to Estimated Fetal Weight in the Diagnosis of Fetal Growth Restriction

*Catherine Shield MD, Pamela Simmons DO/MPH, Neelima Sukhavasi MD/MPH,  
Karlee Mott BS, Michael Plessala BS and Elizabeth Sutton PhD*

**Introduction:** Traditionally, fetal growth restriction (FGR) has been defined as fetuses with an estimated fetal weight (EFW) <10th percentile for gestational age during ultrasound. In 2020, the Society for Maternal Fetal Medicine recommended a diagnosis of FGR when either EFW or abdominal circumference (AC) were <10th percentile. There is limited evidence showing that there is a direct correlation between AC<10th percentile alone as a marker of FGR leads to increased morbidity and mortality as seen with EFW <10th percentile counterparts. The aim of this study was to evaluate the rate of small for gestational age (SGA) and neonatal morbidity among neonates diagnosed with fetal growth restriction (FGR) in utero based on abdominal circumference (AC) <10th percentile alone compared to neonates deemed FGR based on both AC and EFW <10th percentile. We hypothesized that patients with a FGR diagnosed by <10th percentile AC alone will have a decreased risk of SGA at birth compared to those with FGR diagnosed by the combination <10th EFW and AC.

**Methods:** This is a retrospective cohort study of deliveries performed at Woman's Hospital, a tertiary hospital in South-Central Louisiana, with an in-utero diagnosis of fetal growth restriction (ICD-10 code) delivered between January 1, 2023 and December 31, 2024 with a growth ultrasound within 30 days of delivery (n=682 included). Biometry was compiled from ultrasound examinations collected from the hospital's electronic medical records (EMR) and matched to the Women and Infants Clinical (WINC) database for outcome data. The primary outcome was small for gestational age (birth weight for gestational age < 10th percentile) diagnosis at birth, and secondary outcomes included NICU admission, preterm birth, and low birth weight (<2500g).

**Results:** Among 682 deliveries included, 304 fetuses met criteria for FGR based on AC alone, 289 by both AC and EFW, and, though the FGR ICD-10 was associated with the pregnancy, 89 had both AC and EFW  $\geq$  10th percentile at the last growth ultrasound. Individuals with AC <10th alone were more likely to be Black and less likely to be Asian ( $P=0.009$ ) compared to both AC and EFW <10th, as well as have preeclampsia and chronic hypertension ( $p<0.001$ ). At birth, compared to both AC and EFW <10th, neonates with AC <10th alone were less likely to be small for gestational age ( $p=0.030$ ) or low birth weight ( $p<0.001$ ), but more likely to be born preterm ( $p=0.040$ ).

**Conclusions:** Our study found that infants with both an AC and EFW <10th percentile in their last fetal growth ultrasound were more likely to be small for gestational age and be low birth weight compared to infants with a diagnosis of AC <10th percentile only (i.e., EFW > 10th percentile). Interestingly however, those infants with in utero AC only measurement were more likely to be born preterm compared to those with both an AC and EFW <10th percentile.

# Impact of Integrating Psychiatric Care into High-Risk Obstetrical Care

*Alexandra Thomas MD, Hannah Doran MD, Mary Coleman MD, Tina Nguyen BS, Angella Chang BA, Stacey Holman MD and Tabitha Quebedeaux MD/PhD*

**Objective:** Perinatal mental health and substance use disorders are the leading cause of maternal mortality during the perinatal period, causing as many as 23% of pregnancy associated deaths. The risk of increased morbidity and mortality can also be extended to fetal outcomes. Although universal screening for mental health disorders during pregnancy and postpartum is recommended, fewer than half of women with perinatal depression are identified by their obstetric clinician. This study investigates the potential maternal and fetal benefits of integrating psychiatric care into prenatal visits.

**Methods:** A retrospective chart review of patients receiving care in the LSU New Orleans High Risk Obstetric (HROB) Clinic at University Medical Center since inception of the integrated Obstetric Psychiatry (OB-Psyc) service January 2018 through December 2022. Patients referred to OB-Psyc were screened, and data was collected regarding patient characteristics, encounter and follow up data, and pregnancy and postpartum outcomes of interest. Analysis was conducted to investigate pregnancy outcomes based on level of engagement (or percentage of appointments attended) with OB-Psyc care: no-exposure, low-exposure, and high-exposure. A p-value of  $<0.05$  was considered statistically significant.

**Results:** A total 140 patients were referred to OB-Psyc services while receiving prenatal care in the HROB clinic. Of those, 33% did not follow through with OB Psyc Care (no-exposure), 35% were minimally engaged in OB-Psyc care (low-exposure) and the remaining 35% were highly engaged in OB-Psyc care (high-exposure). On average, 4 OB-Psyc appointments were scheduled during their prenatal care, and the percentage of appointments attended by the low-exposure and high-exposure group were 32% and 70%, respectively ( $p<0.001$ ). Patients with low-exposure to OB-Psyc care were more likely to have outcomes of IUFD and PTB as compared individuals with high-exposure to OB-Psyc care (IUFD: 8.6% vs 1.6%,  $p=0.174$ ; PTB: 45.7% vs. 19.4%,  $p=0.022$ ).

**Conclusions:** Identifying mental health disorders during pregnancy offers providers the opportunity to support their patients during their prenatal care and postpartum period.

## Stage I Hypertension and Aspirin Use in Pregnancy

*Keiko Leong MD/MPH, Danielle Despanie BS/MS/MBA, Karlee Mott BS, Lacey Budd BS and Tabitha Quebedeaux MD/PhD*

**Objective:** Stage I hypertension (HTN) is defined by the American Heart Association (AHA) as blood pressures  $\geq 130/80$  mmHg. In contrast, the ACOG defines chronic HTN as blood pressures  $\geq 140/90$  mmHg on two occasions at least 4 hours apart prior to 20 weeks gestation. Studies have shown a significant difference in maternal and neonatal outcomes when investigating the Stage I HTN group compared to normotensive pregnant mothers. Given this data, we question if pregnant patients meeting Stage I HTN criteria appropriately placed on preeclampsia preventive therapies such as aspirin (ASA) would have improved outcomes. Our hypothesis is that the patients with Stage I HTN will have significant differences in adverse outcomes if treated with ASA.

**Methods:** A retrospective chart review was performed to decipher perinatal outcomes in a cohort of pregnant patients with Stage I HTN +/- provider recommendations of ASA use (2018 – 2021). Analysis of outcomes was then performed comparing those with Stage I HTN, Stage II HTN and normotension during their pregnancies and furthermore stratified them into the exposure with or without ASA use.

**Results:** A total of 2049 charts were reviewed and 606 (29.5%) of those met criteria for Stage I HTN. Of these, 10.9% were on aspirin while 89.1% were not. When comparing groups, those in the stage I HTN on aspirin group versus those in the stage I HTN not on ASA showed higher rates of preeclampsia with severe features (25.7% vs 11.8%,  $P < 0.001$ ), extended postpartum hospital stay for blood pressure monitoring (7.5% vs. 1.1%,  $P < 0.001$ ) and severe blood pressure requiring IV treatment (13.6% vs 4.2%,  $P < 0.001$ ).

**Conclusions:** ASA use was not associated with improvement of primary outcomes. We reason that this is likely secondary to ASA being recommended for other high risk co-factors, not Stage I HTN alone. Overall, rates of ASA use during the study period show underutilization of ASA for patients at high risk for hypertensive disorders of pregnancy. We recommend re-examining this question in a prospective cohort study with proper ASA recommendations and Stage I HTN recognition. Future areas of study include examining doses of ASA used and stratifying these groups further based on BMI.



# Comparative Analysis of Frozen Embryo Transfer Protocols in Patients with and without Ovulatory Dysfunction

*Juan Naranjo MD, Anamika Tandon BS, Aiden Jacobs BS, Elizabeth Sutton PhD,  
Siyi Chen PhD and Jay Huber MD/PhD*

**Objective:** This study aimed to determine which endometrial preparation protocol for frozen embryo transfer (FET) results in the highest live birth rate (LBR) in patients with and without ovulatory dysfunction, specifically polycystic ovary syndrome (PCOS) and diminished ovarian reserve (DOR). The protocols compared were: 1) semi/modified-natural (SN), 2) estrogen programmed (EPFET), and 3) stimulated.

**Methods:** This retrospective cohort study included 693 patients who underwent 1,258 FET cycles at a fertility clinic between January 2021 and March 2024. Patients were grouped by endometrial preparation protocol used: SN (n=228), EPFET (n=775), and stimulated (n=195). LBRs were compared across protocols for all cycles (n=1258), cycles in patients with PCOS (n=480), and cycles in patients with DOR (n=439). Statistical methods included ANOVA for continuous variables, logistic regression for categorical variables, and calculation of crude and adjusted relative risks (RR) with 95% confidence intervals. A sub-analysis was performed for each subgroup utilizing euploid embryos confirmed on pre-implantation genetic testing for aneuploidy (PGT-A), including all cycles (n=584), cycles in patients with PCOS (n=218), and cycles in patients with DOR (n=208).

**Results:** In 1,258 FET cycles, SN had the highest LBR (45.8%), followed by EPFET (33.9%), and stimulated (30.8%) ( $P<0.001$ ). In patients with PCOS (n=480), LBRs were 44.4% for SN, 35.3% for EPFET, and 35.1% for stimulated ( $P=0.413$ ). In patients with DOR (n=439), SN had the highest LBR (45%), followed by EPFET (31.2%), and stimulated (21.7%) ( $P=0.005$ ). In cycles with euploid embryos (n=584), LBRs were 55.3% (SN), 35.7% (EPFET), and 31.6% (stimulated) ( $P<0.001$ ). In euploid PCOS cycles (n=218), LBRs were 58.6% (SN), 39.9% (EPFET), and 41.2% (stimulated) ( $P=0.173$ ). In euploid cycles for DOR patients (n=208), LBRs were significantly higher in SN (53.2%) vs. EPFET (33.6%) and stimulated (16.7%) ( $P<0.001$ ). SN was associated with a threefold higher LBR compared with stimulated in the euploid DOR subgroup (adjusted RR 3.1, 95% CI 1.45–6.62).

**Conclusions:** The SN protocol was consistently associated with the highest LBRs across all groups. In PCOS patients, EPFET and stimulated had comparable LBRs, allowing for flexibility in protocol choice when SN is not feasible. In DOR patients, EPFET was the second-best option when SN could not be done. The SN protocol should be utilized as the primary endometrial preparation technique for FET, including in patients with DOR and PCOS. When SN is not feasible, EPFET should be favored over stimulated, especially in DOR, while the choice between EPFET and stimulated is less likely to affect outcomes in patients with PCOS.

# Systematic Review and Meta-Analysis of Administration of Liposomal Bupivacaine for Opioid Reduction after Cesarean Delivery

*Madelyn Roberson MD, Siyi Chen PhD, Ashley Paysse BS, Hunter Collins PhD, Elizabeth Sutton PhD and Edward Schwartzenburg MD*

**Background and Objective:** To perform a systematic review and meta-analysis evaluating the efficacy of intraoperative liposomal bupivacaine (LB) administration during cesarean delivery for reducing postoperative opioid use

**Methods:** The following databases were searched from inception to February 20, 2025: PubMed. Electronic search used: Liposomal bupivacaine AND (cesarean OR cesarean section OR cesarean delivery). No limits or filters were applied. We included randomized controlled trials (RCTs) and prospective or retrospective studies of patients who underwent cesarean delivery, received LB for pain management, had postoperative opioid use assessed, and included a no-treatment or minimal-treatment comparison group.

**Results:** Nine studies met inclusion criteria, with a combined total of 1407 participants, including 802 in the LB group and 605 in the control group. A Bayesian hierarchical model was used to estimate treatment effects. Posterior sampling was conducted via Markov Chain Monte Carlo methods, with posterior inference on the hierarchical treatment effect. The Bayesian meta-analysis model estimated a mean opioid reduction of -14.31 morphine equivalents (95% credible interval [CrI]: -23.80 to -4.35), with a 94% probability of benefit. The Gibbs sampling model estimated a reduction of -0.31 morphine equivalents (95% CrI: -2.32 to 1.63), with a 62.3% probability of benefit. Pain scores and length of hospital stay were comparable between groups. No significant increase in adverse events was observed.

**Conclusion:** Liposomal bupivacaine likely reduces postoperative opioid use in cesarean delivery, though effect size and certainty vary based on modeling approach. These findings support the potential role of LB in multimodal analgesia, but further large-scale RCTs with standardized dosing and administration techniques are needed to confirm clinical benefits.

**Keywords:** Liposomal bupivacaine, cesarean delivery, postoperative pain, opioid-sparing analgesia, Bayesian meta-analysis

# **Oligohydramnios as a Potential Risk Factor for Postpartum Readmission for Hypertensive Disorders of Pregnancy**

*Rachel Denny MD, Tabitha Quebedeaux MD/PhD, Sidney John BS, Emily Dubuisson MD and Elizabeth Sutton PhD*

**Objective:** Oligohydramnios, despite only affecting between 4-5% of all pregnancies at term, can be associated with significant adverse pregnancy conditions including congenital anomalies, fetal growth restriction, hypertension, and maternal vasculopathy. Hypertension affects about 5-10% of all pregnancies globally, and amongst patients with oligohydramnios, hypertension is the most common underlying medical condition. This study investigates if the diagnosis of oligohydramnios leads to an increased risk of postpartum readmission for hypertensive disorders of pregnancy compared to gestations unaffected by oligohydramnios.

**Methods:** De-identified data was extracted from the Women and Infants Clinical Database. Three study groups were identified for investigation within this study by distinguishing gestations with: hypertensive disorders of pregnancy and oligohydramnios (PIH+oligo), hypertensive disorders of pregnancy and no oligo (PIH only), and Oligo only. Patients with gestations not affected by oligo or any gestational hypertensive diagnosis served as the control (Neither). Readmission was defined as return to hospital with newly diagnosed hypertensive disorder of pregnancy postpartum that did not exist at time of original delivery discharge. Secondary outcomes included preterm birth rates, NICU admission, and infant length of stay. Categorical variables were analyzed using Chi-squared tests, and continuous variables were compared using ANOVA.

**Results:** A total of 62,802 patients were included in the final analysis. Patients with oligo were noted to have a significantly higher rate of readmission for new onset postpartum hypertensive urgency compared to those affected by neither oligo or a hypertensive disorder of pregnancy. Preterm birth rates, NICU admission, and infant length of stay were also higher in the oligo only group compared to neither, however the highest rates of all of these outcomes were seen in the oligo and hypertensive disorders of pregnancy group.

**Conclusions:** The presence of oligo is an independent risk factor for postpartum readmission for new onset hypertensive urgency and these patients should be discharged with a blood pressure cuff. While a strength of this project is the large data set, the study is limited by inclusion of gestations with congenital anomalies, along with those affected by prelabor rupture of membranes, whether term or preterm.

# Outcomes of Expectant, Medical, and Surgical Management of Early Pregnancy Loss

*Sylvia Lobo MD, Anamika Tandon BS, Danielle Despanie BS/MS/MBA,  
Elizabeth Sutton PhD and Jaime Alleyn MD*

**Objective:** Early pregnancy loss (EPL) is estimated to affect 10% of clinical recognized pregnancies. In patients experiencing EPL who are hemodynamically stable, without medical complications, and without symptoms indicating urgent or emergent surgical management, the American College of Obstetricians and Gynecologists (ACOG) recommends offering patients expectant, medical, or surgical management. Randomized control trials have demonstrated all treatment modalities as effective methods for complete evacuation of intrauterine products of conception. More recently retrospective analyses have found success rates of medical management significantly lower than those from randomized controlled trials, at 50 - 68%, suggesting that effectiveness of management methods may differ in clinical practice. This study assessed and compared the effectiveness of expectant, medical, and surgical management of EPL.

**Methods:** This retrospective cohort study included individuals with EPL at a community-based hospital or an academic medical center in New Orleans from January 1, 2020 - December 31, 2023. Individuals in this study had clinical evidence of a nonviable intrauterine pregnancy at gestational age less than 13 weeks. Individuals were excluded if found to be hemodynamically unstable at time of diagnosis or were diagnosed with molar pregnancy, ectopic pregnancy, or absence of noticeable products of conception. Effectiveness of EPL completion between expectant, medical and surgical management were compared. Patient sociodemographic factors in each group were assessed. A p-value of <0.05 was considered statistically significant.

**Results:** Among the 142 individuals included in the analysis, 40.1% (n=57) were initially managed for early pregnancy loss expectantly, 48.5% (n=69) medically, and 11.3% (n=16) surgically during the study period. There were no differences in sociodemographic characteristics, type of abortion (incomplete vs. inevitable vs. missed) or location of presentation between the study groups. Only 69.7% (n=99) of the charts reported documentation of management counseling. Across the entire study cohort, 62% of individuals experienced resolution with a singular management choice. Across groups, based on a singular management choice, effectiveness differed between groups- 48.2% for expectant management, 67.1% for medical, and 87.5% for surgical (p = 0.008).

**Conclusion:** This study provides insight into the management of EPL in a clinical practice in New Orleans. While surgical management remained the most effective, medical management had a success rate similar to recent retrospective studies. Documentation of management options was lower than expected, highlighting a need for more consistent documentation practices. Future work should explore how access to additional interventions such as mifepristone and manual vacuum aspiration may impact both patient choice and management success.

# Effect of Residential Location and Natural Disaster Experience on Adverse Pregnancy Outcomes

*Jordan Spencer MD, Sarah Buzhardt MD, Neelima Sukhavasi MD/MPH and Elizabeth Sutton PhD*

**Introduction:** On August 29<sup>th</sup>, 2021, Hurricane Ida made landfall and directly impacted the diverse communities served by Woman's Hospital in Baton Rouge, Louisiana. Prior studies have shown that socioeconomic status and exposure to natural disasters have independent adverse effects on pregnancy outcomes, specifically pre-term birth. This study aimed to evaluate the relationship between neighborhood of residence and pregnancy outcomes before and after experiencing a natural disaster. We hypothesized there would be a disparate increase in adverse outcomes for those who experienced a natural disaster in highly disadvantaged neighborhoods.

**Methods:** We conducted a retrospective study using Woman's Hospital's Women and Infants Clinical (WINC) database. Neighborhood disadvantage was determined by area deprivation index (ADI) for the residential address documented in the EMR. Patients with singleton gestations who delivered 6 months prior to or 6 months after August 29<sup>th</sup>, 2021, with an ADI in the highest (1, 2 or 3) or lowest (8, 9, or 10) tertiles were included. Outcomes included pre-term birth (birth prior to 37 weeks gestation), gestational diabetes, low birthweight (<2500g), and NICU admission.

**Results:** Of the 3,741 patients included in the analysis, 1760 (47%) delivered in the 6 months before Hurricane Ida and 1981 (53%) delivered in the 6 months after. On average, the total cohort was White (50%) or Black (39%) race, non-Hispanic (93%), non-smoking (98%), had obesity (BMI  $33.0 \pm 7 \text{ kg/m}^2$ ), and nearly half (45%) were enrolled in Medicaid. Pre- and Post-Ida groups did not differ in any sociodemographic characteristic, other than Hispanic ethnicity (6.0% Pre-Ida vs. 7.6%,  $p=0.026$ ). Individuals living in advantaged (ADI 1-3) compared to disadvantaged (8-10) areas differed in all sociodemographic characteristics (except ethnicity), with disadvantaged birthing individuals more likely to be younger in age, Black, enrolled in Medicaid, smokers, and have higher BMIs (all  $p<0.05$ ). Similar trends were seen for rates of preterm birth, low birth weight, and NICU admission (all  $p<0.05$ ), but this disparity did not change after Hurricane Ida. The likelihood of GDM, however, was higher in advantaged versus disadvantaged ADI groups, and this disparity did increase after Hurricane Ida ( $p=0.073$  pre-Ida \*  $p=0.006$  post-Ida).

**Conclusion:** The results of this study indicate that individuals living in more disadvantaged areas are more likely to be younger in age, Black, enrolled in Medicaid, smokers, and have higher BMIs. They also have a higher likelihood of preterm birth, low birth weight, and NICU admission. It does not, however, show that experiencing a natural disaster increases these disparities. Interestingly, the results of this study indicate that individuals living in more advantaged areas have a higher likelihood of gestational diabetes, and experiencing a natural disaster does increase this disparity.

## Maternal Obesity and its Impact on Successful Induction of Labor

*Jonte Ellison MD, Maya Bragg MD, Emily Dubuisson MD, Breon Wise BS, Nicole Freehill MD and Tabitha Quebedeaux MD/PhD*

**Objective:** In the face of increasing obesity rates within the US, obstetricians are challenged with successfully managing induction of labor (IOL) in a patient population shown to have increased rates of failed IOL and cesarean delivery. The American College of Obstetrics and Gynecology (ACOG) outlines guidelines and recommendations for shortening induction times and decreasing cesarean section rates. However, there is little universal standardization of IOL procedures and protocols, especially when caring for obese gravid patients. Studies have shown that early amniotomy after cervical ripening can shorten time-to-delivery without significantly increasing cesarean rates or maternal/neonatal morbidity. This study intends to investigate timing of amniotomy and its influence on IOL outcomes and determine if maternal obesity has an impact on this relationship.

**Methods:** This retrospective chart review included birthing persons at term undergoing IOL at term at Touro Infirmary from January 2018 to December 2021. Patients with live, viable singleton gestations experiencing IOL in which an amniotomy was performed and had successful vaginal delivery were included for analysis. Amniotomy timing was defined as the time from IOL start to amniotomy completion: early (0-6 hours), moderate (6-12 hours) and late AROM (12+hours). This study then compared the duration of labor between individuals with and without obesity. A p-value of  $<0.05$  was considered statistically significant.

**Results:** A total of 144 patients were included in this initial analysis of this ongoing project. The average age (30yo), gravida (3) and gestational age at time IOL (38 weeks) were not different amongst obese and non-obese patients. Interestingly, 68% of patients undergoing IOL in our institution were obese, and 88% were non-Hispanic Black, demonstrating a marginalized patient population in OB literature. The average length of labor was  $988.7 \pm 554$  min for all patients that ultimately had a vaginal delivery. When groups were compared based on timing of amniotomy, the length of labor was significantly lower in the early amniotomy group ( $467.3 \pm 304$  min) as compared to the moderate and late amniotomy groups ( $782.9 \pm 237$  min and  $1468 \pm 491$  min, respectively;  $p < 0.001$ ). There was no difference in overall time to delivery when comparing obese to non-obese patients ( $p = 0.910$ ).

**Conclusion:** Consistent with recent studies, early amniotomy in this study was associated with shorter durations of labor in all individuals. Additional data collection is ongoing to understand how cervical dilation, number of prostaglandins used and various classes of obesity impact length of labor in relation to timing of amniotomy.

# Opioid Use in Third Trimester of Pregnancy and Neonatal Morbidity and Mortality

*Aleysh Alejandro Ayala MD, Neelima Sukhavasi MD/MPH and Elizabeth Sutton PhD*

**Introduction:** The state of Louisiana is currently in an opioid use epidemic, and pregnant patients are not immune its effects. Recent data from the Louisiana's Pregnancy-Associated Mortality Review Committee revealed that in 2020 almost half of pregnancy-associated but not related deaths were due to accidental overdose. Opioid use in third trimester pregnancy increases risk for preterm delivery, decreased birth weight, NICU length of stay, and maternal withdrawal. The aim of this study is to characterize the incidence of opioid related adverse maternal and neonatal outcomes among pregnant women using opioids in Louisiana. We hypothesize that women who use opioids in the third trimester of pregnancy will have an increased risk of adverse maternal and fetal outcomes.

**Methods:** We conducted a retrospective study using the Women and Infants Clinical (WINC) database to obtain urine drug screens, birth weight, NICU LOS, gestational age at delivery, and neonatal withdrawal. Our patient population are pregnant patients of any age who had a singleton pregnancy and were screened for opioid use and delivered at Woman's Hospital on or after January 1, 2016 (n=211). We compared neonatal and maternal outcomes across three groups: medication-assisted therapy, first trimester only opioid use, and third trimester opioid use. Categorical outcomes were compared using chi-square tests, while continuous variables were assessed using the Kruskal-Wallis test.

**Results:** In our study population, the average gestational age at delivery was 37.8 weeks with 64.9% of patients being of white race. Most of these patients delivered via vaginal delivery (61.1%). Of the 211 births, 22.7% ( $p<0.0221$ ) were delivered preterm with 58.8% of neonates requiring NICU admission. After delivery, significant differences ( $p<0.0078$ ), were observed in the diagnosis of neonatal opioid withdrawal syndrome with the highest rates seen in the MAT (41.1%) and third trimester exposure groups (37.4%).

**Conclusion:** Opiate usage is associated with increased neonatal ICU admissions for neonatal withdrawal syndrome with the highest rates seen in patients using opiates in the third trimester.

# Evaluating the Effectiveness of Furosemide in the Management of Preeclampsia with Severe Features in the Postpartum Period - A Retrospective Cohort Study

*Cameron Holmes MD, Akshay Goswami MD, Julie Barnes BS, Gabrielle Stone MD, Vivian Mire BS, Kiera McNeary BS and Tabitha Quebedeaux MD/PhD*

**Objective:** The leading causes of pregnancy-related death in Louisiana during 2020 were cardiomyopathy and cardiovascular conditions, and 53% of these deaths occurred within 42 days of delivery. This highlights the need to re-evaluate standard treatment modalities utilized in the management of postpartum (PP) patients with cardiovascular disease. There have been promising studies investigating the effect of furosemide on persistent PP hypertension. Given the significant complications related to PP preeclampsia in our patient population, this study sought to investigate the benefits of adjunctive furosemide treatment in the PP management of individuals diagnosed with severe preeclampsia. We hypothesize adding furosemide to the medical management of hypertension in the PP severe preeclamptic patient will yield more timely and overall improved blood pressure control during admission and will decrease readmission rates for HTN urgency.

**Methods:** A retrospective cohort study of individuals with preeclampsia with severe features treated with magnesium sulfate treatment immediately PP between May 2018 and December 2024 was performed. Patients on furosemide therapy during their antepartum course and those with contraindications for furosemide were excluded. Patients who received PP furosemide were compared to patients who did not receive furosemide in the immediate PP period to assess hospital length of stay and postpartum readmission rates. A p-value of  $<0.05$  was considered statistically significant.

**Results:** 241 individuals were included in the analysis, of which 23 (9.5%) were initiated on furosemide therapy and 218 (90.5%) were not. Of those initiated on furosemide therapy, 12 (52.2%) had pre-existing chronic hypertension, compared to 63 (28.9%) in the no-furosemide group ( $p=0.04$ ). Overall, 44 patients (18.3%) were kept for an extended period of time (defined as greater than 2 days for a vaginal delivery and 4 days for a cesarean section). Of those kept for extended monitoring, 26.1% ( $n=6$ ) were treated with furosemide and 17.4% ( $n=38$ ) of patients did not receive furosemide ( $p=0.460$ ). None of the patients who received furosemide were readmitted compared to 8.3% ( $n=18$ ) patients who did not receive furosemide ( $p=0.310$ ).

**Conclusions:** Our study found decreased readmission rates in patients who received furosemide compared to those that did not receive furosemide, although we failed to show a statistically significant difference likely given small sample size. Patients who received furosemide were significantly more likely to have chronic hypertension compared to those that did not receive furosemide. To further investigate the utility of PP furosemide therapy in patients with preeclampsia with severe features after magnesium sulfate therapy, a larger, randomized study should be pursued.

*\*to be presented at a later date*



## **POSTERS**

Posters are numbered 1- 13 for ease of viewing in the observation hall.

### **OBSTETRICS**

#### **1- Integration of Repeat Syphilis POCT for Pregnant Individuals to Improve Time to Treatment of Syphilis in Pregnancy**

Chandler Black MD, Neelima Sukhavasi MD/MPH, Sarah Buzhardt MD, Lawrence Gougisha MPH/BSN/RN and Elizabeth Sutton PhD

#### **2 - Maternal Obesity and its Impact on Inductions of Labor: Investigating Early Amniotomy**

Maya Bragg MD, Jonte Ellison MD, Breon Wise BS, Emily Dubuisson MD, Sidney John BS, Nicole Freehill MD and Tabitha Quebedeaux MD/PhD

#### **3 - Effects of Remote Blood Pressure Monitoring on Postpartum Readmission Rates**

Julia Hernandez MD, Stacey Holman MD, Tabitha Quebedeaux MD/PhD, Angela Bradley-Byers MN/FNP-C and Asha Heard MD/MPH

#### **4 - Validating a Locally Derived Risk Assessment Calculator for Prediction of Postpartum Readmission for Hypertension**

Madison Lanza MD, Neelima Sukhavasi MD/MPH, Andrew Chapple PhD and Elizabeth Sutton PhD

#### **5 - Investigation of the Impact of Iron Infusions on Maternal Anemia and Obstetric and Fetal Outcomes in a Tertiary Hospital in South-Central Louisiana**

Madison Maas MD, John Morgan MD, Sarah Buzhardt MD and Elizabeth Sutton PhD

#### **6 - Perinatal Healthcare Access Among Disadvantaged Birthing Persons in South Central Louisiana**

Laura Molina MD, Andrea Usher MD and Elizabeth Sutton PhD

#### **7 - Impact of Multidisciplinary Care on Pregnancy Outcomes and Treatment Adherence in Diabetic Birthing Individuals**

Jhane M. O'Guin MD/MPH, Tabitha Quebedeaux MD/PhD, Angela Bradley-Byers MN/FNP-C, Robert Maupin MD and Asha Heard MD/MPH

### **GYNECOLOGY**

#### **8 - Assessing the Impact of Health Literacy and Demographics on LARC Uptake among Women Seeking Contraceptive Care**

Amber Crenshaw MD, Elizabeth Florence MD and Elizabeth Sutton PhD

#### **9 - The Trauma-Informed Speculum Exam**

Kayla Eboreime MD and Holly Provost MD

#### **10 - Rate of Cervical Cancer Screening is Performed Following Appropriate Guidelines within the LCMC Health System in Immunocompromised Patients without HIV Infection**

Saskya Etienne MD, Taylor Plaisance BS, Angella Chang BA, Ngan Tran BS, Jordan Richard BS, Tasnia Monir BS and Amelia Jernigan MD

**11 - Cytoreductive Surgery and HIPEC for Recurrent Granulosa Cell Tumors of the Ovary:  
A Case Series**

Kristin Malone MD and Amelia Jernigan MD

**12 - The Effects of Video Based Education of Patient's Understanding of Abnormal  
Uterine Bleeding**

Tina Nguyen MD, Elizabeth Sutton PhD, Holly Provost MD and Antonia Traina MD

**13 - Identifying Modifiable Risk Factors in Patients with Symptomatic Anemia Requiring  
Transfusions in Time to Symptom Resolution**

Meghana Reddy MD, Holly Provost MD and Antonia Traina MD

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