2nd Annual UTRGV Department of Obstetrics & Gynecology Resident Research Day

May 1, 2020

Agenda

8:00-8:10am: Welcome- Dr. Tony Ogburn

8:10-8:12am: Intro to Research Presentations- Dr. Jennifer Salcedo

8:15-0825am: Anita Motwani, MD, MPH
8:25-8:30am: Q&A

8:30-8:37am: Anita Madison, MD, MPH
8:37-8:40am: Q&A

8:40-8:47am: Alejandra Vega, MD
8:47-08:50am: Q&A

8:50-8:57am: Tiffany Alexander-Rawlins, MD
8:57-9:00am: Q&A

9:00-9:07am: Samantha Castillo, DO
9:07-9:10am: Q&A

9:10-9:25am: Break

9:25-9:32am: Norma Garcia, DO
9:32-9:35am: Q&A

9:35-9:42am: Dung Dang, MD
9:42-9:45am: Q&A

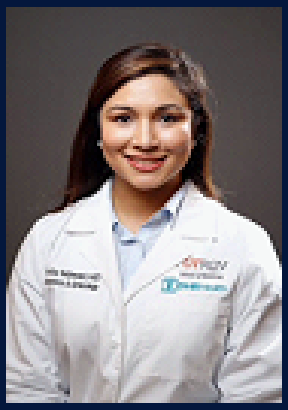
9:45-9:52am: Jonathan Pepper, MD
9:52-9:55am: Q&A

9:55-10:02am: Carolina Martinez-King, MD, MS
10:02-10:05am: Q&A

10:05-10:12am: Bianca Ibarra, DO & Nazanin Ahmadieh, DO, MPH
10:12-10:15am: Q&A

10:15-10:20am: Closing- Dr. Tony Ogburn

Resident Research Presentations



Trends of E-cigarette Use Among Texas Adults, 2016-18

Anita Motwani, MD, MPH
Faculty Mentor: Elissa Serapio, MD, MPH

Background: Electronic nicotine delivery systems (ENDS) use has been increasing in popularity and recent reports demonstrate an association with severe lung disease. Behavioral Risk Factor Surveillance System (BRFSS) provides information on demographic and socioeconomic factors affecting ENDS use in Texas in 2016-2018.

Objectives: The primary objective is to report on the prevalence of self-reported ENDS use. The secondary objectives are to characterize prior cigarette use and socioeconomic factors of ENDS users versus non-users.

Methods: This is a secondary analysis of data from BRFSS 2016-2018. Descriptive statistics were utilized to investigate the overall prevalence of ENDS use and trends over time. An exploratory analysis was conducted to evaluate whether there is an association between ENDS use and sex, age, race, income, educational attainment, general health status and prior cigarette use. Statistical analysis was performed with Statistical Analysis Software.

Results: The prevalence of ever ENDS use in Texas among adults age 18 or greater was 20% in 2017 and 2018 and was 24% in 2016. In 2018, there was higher self-reported use among males compared to females, individuals below age 44 compared to those aged greater than 44, white race compared to all other races, annual income greater $50,000 compared to annual income less than $50,000, and high school graduates compared to those who did not complete high school. More current ENDS users than non-current ENDS users reported poor health. Of individuals who reported ever ENDS use from 2016-2018, 37-44% reported attempting smoking cessation in the past 12 months.

Conclusions: 1 in 5 individuals in Texas reported ever using ENDS in BRFSS 2016-2018. Characterization of ENDS use among Texans can inform public health stakeholders regarding populations at high risk for sequelae of ENDS use.

Prevalence of Planned Abdominal Binder Use After Vaginal Delivery

Anita Madison, MD, MPH
Faculty Mentor: Laura Faye Gephart, MD, MBA
Co-Researchers/Assistants: Leah Bryan, MS, Amber Dean, PhD

Background: Pregnancy and vaginal delivery are risk factors for pelvic floor dysfunction. Abdominal binder use may increase intra-abdominal pressure impacting pelvic floor healing or function in recently traumatized postpartum pelvic floor muscles. There are no studies evaluating the use of abdominal binders immediately post vaginal delivery.

Objectives: To assess the prevalence of postpartum abdominal binder use, timing and reasons for use.

Methods: In this cross-sectional observational survey study, women who underwent a vaginal delivery at Women's Hospital at Renaissance (WHR) were enrolled. Women were excluded if they did not speak Spanish or English. Participants were recruited on the postpartum unit and given a paper survey consisting of 4 questions on abdominal binder use. Data was input into a de-identified database. Means were calculated for continuous variables and medians for categorical variables. Comparative statistics were calculated using T-tests for continuous variables and Chi-squared tests for categorical variables. A p-value <0.05 was considered statistically significant. A sample size of 385 was needed to estimate the number of women planning to use an abdominal binder postpartum within 5% with 80% power, based off an estimated prevalence of 50%.

Results: 673 surveys were submitted. Seven were excluded due to cesarean delivery. The average age was 26. Median gravidity and parity were two and two. 549 women (82%) planned to wear an abdominal binder postpartum. 335 women of the 549 (61%) provided a specific time when they would start use. 240 women (71%) would start at two days or less postpartum, 60 women (18%) would start at 3-7 days postpartum, and 35 women (11%) would start after 1 week postpartum. 248 women responded with reason for planned use. 52.8 % reported health reasons, such as to decrease swelling/inflammation, support the back and organs, feel physically better, lose weight, improve posture and decrease pain. 39.9% reported appearance-related reasons, such as, "to make the tummy look smaller", "to cover the loose skin" and "to get my normal tummy back." 4.8% reported a friend or family member recommended wearing it.

Conclusions: Among women delivering at WHR, planned abdominal binder use following vaginal delivery is common. Reasons cited for use include health reasons and desire to return to prior body shape. The effect of using an abdominal binder in the postpartum period is unknown. More research is needed to better elucidate how increased postpartum intraabdominal pressure affects healing in traumatized pelvic floor muscles.

Over-the-Counter Access to Levonorgestrel Emergency Contraception in South Texas: Does Over-the-Counter Mean Ready to Buy?

Alejandra Vega, MD
Faculty Mentor: Jennifer Salcedo, MD, MPH, MPP
Co-Researchers/Assistants: Ye Ji Choi, MS

Background: Although levonorgestrel emergency contraceptive pills (LNG-ECPs) have been approved for over-the-counter (OTC) sale without age restriction in the U.S. since 2013, previous investigations have shown there are still significant barriers to its OTC access.

Objectives: To determine the percentage of pharmacies in Hidalgo County, Texas, with unrestricted over-the-counter (OTC) access to levonorgestrel (LNG) emergency contraceptive pills (ECPs), defined as in-stock and without additional security barriers, and to compare this access to that of other reproductive health items.

Methods: We conducted in-person secret shopper surveys in retail pharmacies from October 2018 to March 2019, proportionally sampled by city, recording OTC availability of LNG-ECPs, security barriers (such as lock boxes), and price. The same information was collected for condom multipacks, ovulation prediction test kits, and pregnancy tests. We planned to sample 89 of 159 retail pharmacies to estimate unrestricted LNG ECP access within 5% with 95% confidence, based on 15% predicted access.

Results: We surveyed 76 pharmacies, 31 (40.8%) had OTC LNG-ECPs, of which 23 (74.2%) had the product in-stock and 1 (3.2%) had unrestricted access. The most common security barrier was an individual lock box. The mean price for Plan B® was $48.70 ($47-50). Of pharmacies with a place for LNG-ECPs OTC, 30 (96.8%) also had OTC access to condom multipacks, 27 (90.0%) with product in-stock, of which 23 (76.7%) had unrestricted access. The most common security barrier was a wire lock. The mean price was $24.30 ($15-32). For ovulation prediction test kits, 30 (96.8%) provided OTC access, all in-stock, of which 22 (73.3%) had unrestricted access. The most common security barrier was an individual lock box. The mean price was $61.77 ($40-80). For pregnancy tests, 30 (96.8%) provided OTC access, 28 (93.3%) in-stock, of which 25 (83.3%) had unrestricted access. The most common security barrier was an individual lock box. The mean price was $20.73 ($14-30). The difference in unrestricted access between LNG ECPs and the other products was statistically significant ($p<.01$).

Conclusions: While previous research has noted high prevalence of LNG-ECP availability in pharmacies, potential purchasers of OTC LNG-ECPs encounter additional access barriers not associated with other reproductive health products. These additional access barriers to LNG ECPs may increase consumer discomfort, decrease privacy, and delay access.

Presented/Published Info: Poster Presentation at the 2019 Society of Family Planning Annual Meeting (Los Angeles, CA). Manuscript submitted to Contraception.

Intrapartum Management of Gestational Diabetes: Development of a Standardized Protocol with Subcutaneous Insulin Administration

Tiffany Alexander-Rawlins, MD
Faculty Mentor: Jennifer Salcedo, MD, MPH, MPP

Background: Gestational diabetes (GDM), with uncontrolled antenatal and intrapartum capillary blood glucose, is associated with suboptimal neonatal outcomes such as hypoglycemia, macrosomia and stillbirth. While intravenous (IV) insulin has been the standard of care for intrapartum glucose management for GDM, subcutaneous insulin offers several potential advantages, including reducing errors associated with intravenous insulin drip protocols and decreasing the labor force required to maintain the insulin drip.

Objectives: This cohort study will compare maternal and neonatal outcomes 6 months prior to and after introduction of a new standardized protocol for intrapartum management of GDM using a rapid-acting subcutaneous insulin. This protocol will be added to supplement the preexisting Doctors Hospital at Renaissance (DHR) insulin intravenous protocol already approved by the Women's Hospital. The primary outcome measure will be NICU admissions for hypoglycemia. Additional outcomes will include: percent of patients with target blood glucose between 70-130 mg/dl one hour prior to delivery, maternal hypoglycemic events (<70mg/dl), NICU admission rates, and neonatal hypoglycemia (< 40mg/dl).

Methods: The goal of the GDMA intrapartum protocol is to maintain serum glucose levels between 70 and 130mg/dl using a multidose subcutaneous insulin administration regimen with intravenous fluid rotation during both the latent and the active phases of labor. Patients will be assigned to an increased or decreased interval monitoring of capillary blood glucose (CBG) based on baseline risk factors for hyperglycemia. HbA1c on admission, medications used antepartum, and BMI on admission will be used to estimate differences in beta cell reserve and insulin resistance. Based on these initial patient characteristics and using the assessment tool, women will be assigned to a predetermined CBG frequency monitoring under plan A [CBG q4hrs in latent phase; q2hrs in active phase of labor] or B [CBG q2hrs in latent phase; q1hr in active phase of labor] while following a specific treatment algorithm using a rapid acting insulin, Humalog®.

Results: The protocol was approved by several DHR committees: Evidence-Based Committee, Women's Hospital Committee, Diabetes Committee and Pharmacy and Therapeutics. Each reviewed and deemed the protocol to be acceptable and safe for use within the labor setting for women with gestational diabetes. IRB approval is currently pending.

Use of Perineal Warm Compresses During the Second Stage of Labor to Reduce Obstetric Anal Sphincter Injuries and Perineal Pain in the Postpartum Period: Randomized Controlled Trial

Samantha Castillo, DO
Faculty Mentor: Jennifer Salcedo, MD, MPH, MPP

Background: Severe perineal trauma following vaginal delivery may increase maternal morbidity. Use of perineal techniques in labor may lead to reduction in trauma and improve pain. According to a Cochrane review, there is moderate quality evidence that warm compresses may reduce third- and fourth-degree lacerations.

Objectives: The primary objective is to determine if use of perineal warm compresses during maternal pushing reduces the rates of third- and fourth-degree perineal lacerations among term, nulliparous women with epidural anesthesia. The secondary objective is to assess whether warm compresses improve perineal pain in the postpartum period.

Methods: This is a randomized controlled trial in which women will be recruited in the first stage of labor after receiving epidural anesthesia. Participants must be at least 18 years of age, at least 37 weeks gestation, with a live, singleton gestation in cephalic presentation, and have no contraindications to vaginal delivery. Random allocation to either the warm compress or standard care group will occur in the second stage of labor and the intervention will begin at the onset of maternal pushing. Women consented for the study will be excluded prior to randomization if a decision is made for cesarean delivery before the second stage of labor or if they withdraw their consent for study participation. In order to detect, with 80% power, a difference of 4.5% in third- and fourth-degree lacerations with use of warm compresses, 464 participants are needed. After adjusting for exclusions, 590 participants will be recruited, with 290 in each study group using an intention to treat analysis. Information on the primary endpoint of severe lacerations will be collected following delivery. The secondary endpoint on perineal pain will be collected on day 10 and at 3 months postpartum using a 10- point numeric rating scale via text message. The study has received DHR IRB approval.

Implementing Immediate Postpartum Long Acting Reversible Contraception at a Private South Texas Hospital

Norma Garcia, DO
Faculty Mentor: Saul Rivas, MD, MSPH
Additional Faculty Mentor: Tony Ogburn, MD

Background: Short interval pregnancy is associated with poor outcomes in mothers and newborns. Women who receive a long acting reversible contraceptive in the immediate postpartum period (IPP LARC) have decreased short interval and unplanned pregnancies as well as all associated complications. An IPP LARC program was implemented at the Women's Hospital at Renaissance, a private hospital in Edinburg, Texas, in February 2017. The hospital is affiliated with an academic institution. The IPP LARC program is supported by a teaching grant which helps fund most patients.

Objectives: To describe the impact and sustainability of the IPP LARC program in our institution.

Methods: A quality improvement registry, which was created at the outset of program implementation, was cross-referenced with medical records to gather the data for this descriptive analysis. The registry also included billing and reimbursement data used to track program sustainability by confirming Medicaid reimbursement for appropriate patients.

Results: The data was analyzed over a three-year period. There was a total of 405 device placements. Of these, 150 (37.0%) patients had received prenatal care through the university obstetrics and gynecology department, 149 (36.8%) patients had no or limited prenatal care outside our institution, and 106 (26.2%) patients had prenatal care with private providers within our institution. Outpatient prenatal contraception counseling was documented for 88.7% of the patients cared for by the university department. A total of 57 (59.3%) eligible devices had been fully reimbursed by Medicaid at the time of this analysis.

Conclusion: Three years after implementation of the IPP LARC program, we have seen a similar distribution of device placements among our patients and patients without established prenatal care. In addition, we have seen an increased number of consults from private physicians. Many of these patients would not have had access to LARC devices otherwise. Our future vision is to continue expansion of our program through patient education as well as explore patient satisfaction and contraception continuation rates.

Presented/Published Info: The American Congress of Obstetricians and Gynecologists District IV, VII and XI, Annual District Meeting, New Orleans, LA, September 2019 – Oral and Poster presentation

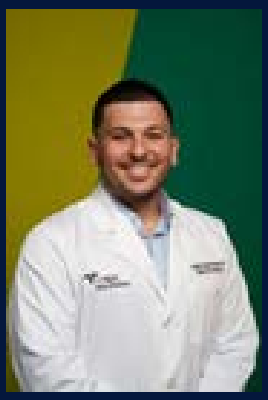
Patient Acceptance of Primary Care Behavioral Health in a Resident Obstetrics and Gynecology Clinic

Dung Dang, MD
Faculty Mentor: Jennifer Salcedo, MD, MPH, MPP

Background: Primary Care Behavioral Health (PCBH) is an emerging field in health care. It is a primary care model in which a Behavioral Health Consultant (BHC) works alongside the primary care provider (PCP) to address behavioral components of health conditions. The ultimate goal of PCBH is to make mental health more accessible to the general patient population. Since PCBH's conception in the 1960s, the research literature has been rapidly expanding and has shown positive influence of the model. Despite the growing research, little has been examined regarding the female patient population, especially in pregnancy. Similarly, little is known about acceptability of the PCBH service within this population. Like the general population, pregnant women also face health problems that can be mitigated by a behavioral approach. Knowing the acceptability of the PCBH service among this patient population can help cater the service to patients during their pregnancy and optimize the effectiveness of PCBH.

Objectives: Primary study objective: To explore the acceptability of Primary Care Behavioral Health (PCBH) among pregnant patients in a resident obstetrics and gynecology clinic. Secondary study objectives: To explore barriers that lead patients to decline the PCBH service. To compare acceptability of PCBH service between patients who have and have not had exposure to the service.

Methods:We developed a survey with guidance from an article on acceptability of healthcare interventions by Sekhon et al. with the intention to assess the components of the acceptability of the PCBH service. These components include affective attitude, burden, ethicality, intervention coherence, opportunity costs, perceived effectiveness and self-efficacy. Answers to questions addressing these areas are on Likert scale from "strongly disagree" to "strongly agree." Limited demographic information will also be collected through survey questions, such as patient age, the number of prenatal care visits and the number of PCBH visits. No patient identifiers will be collected. The survey will also be translated to Spanish by a certified medical Spanish translator as the clinic serves a large number of Spanish-speaking patients. Pregnant patients who present to the resident OBGYN clinic for prenatal care, 18 years old and above, and able to understand spoken and written English or Spanish, will be approached to complete the survey. Data from paper surveys will be transferred into electronic form in REDCap (a secure, web-based electronic data storage system). We will perform descriptive statistics on the acceptability survey and demographic questions. Tests of comparison will be used (such as Chi-square test for categorical data) to compare acceptability by demographic factors.



The Need for HPV Vaccination Among Postpartum Women

Jonathan Pepper, MD
Faculty Mentor: Denise De Los Santos, MD
Additional Faculty Mentors: Tony Ogburn, MD, Abbey Berenson, MD, PhD
Co-Researchers/Assistants: Vania Nwokolo, MS

Background: Human papillomavirus (HPV) is one of the most common sexually transmitted infections in the US, responsible for 70% of cervical cancer cases, most genital warts, and certain cancers of the vulva, and vagina, anus, and head and neck. The HPV vaccine Gardasil® is approved for use in men and women 9 to 45 years old; however, only 42% of young women and 10% of young men have initiated the vaccine series despite its availability. The postpartum period poses a unique opportunity for intervention beyond standard mother-baby care, specifically for primary prevention of HPV infection.

Objectives: We anticipate a large need for HPV vaccination among women within the Doctors Hospital at Renaissance (DHR) Health community, and this study aims to assess that need. Through a brief, one-time, anonymous survey, we aim to obtain demographic and HPV-related information (e.g. knowledge, perceptions and vaccine uptake/barriers).

Methods: A standardized script in either English or Spanish, depending on patient language preference, will be used among women 18–45 years of age who deliver at DHR. Patients <18 or >45 years of age will be ineligible for the survey. Study personnel will identify patients via the Cerner daily census. Responses to survey items will be recorded on a de-identified/coded paper form for later entry into an electronic database for data analysis purposes. We will collect 300 surveys for analysis. Statistical analyses will include chi-squared and Fisher's exact (when applicable) tests for categorical variables and t-tests for continuous variables. A regression analysis will be used to assess if factors, such as type of insurance or level of education, are associated with having had no vaccine.

Results: We anticipate finding a significant number of patients who have not been previously vaccinated. We will use this data to design an intervention for addressing this need.

Provider Knowledge and Practices of the Use of Low Dose Aspirin in the Prevention of Preeclampsia in High Risk Populations

Carolina Martinez-King, MD, MS
Faculty Mentor: Jennifer Salcedo, MD, MPH, MPP
Additional Faculty Mentor: Tony Ogburn, MD
Co-Researchers/Assistants: Nery Guerrero, MS

Background: According to the Texas Maternal Mortality and Morbidity Task Force, the leading cause of maternal mortality in Texas is cardiovascular disease. Specifically, preeclampsia is the fifth leading cause of pregnancy-related deaths in the State, which is consistent throughout the United States. The Task Force determined that there was at least some opportunity for preventability in almost 80 percent of such pregnancy-related deaths. The American College of Obstetricians and Gynecologists (ACOG), Society of Maternal Fetal Medicine (SMFM), and U.S. Preventive Services Task Force (USPSTF) have all released clear guidelines and recommendations on the use of aspirin to prevent preeclampsia in women at elevated risk since 2014. ACOG recommends that daily low dose aspirin be initiated at 12 weeks of gestation and continued until delivery for women with one high risk factor, such as diabetes or history of preeclampsia, or in two moderate risk factors, like obesity and low socioeconomic status. Such use of low dose aspirin has been associated with reductions in both preterm deliveries and development of preeclampsia.

Objectives: We will evaluate provider knowledge and practices surrounding the use of low dose aspirin to decrease the risk of developing preeclampsia in patients at elevated risk. We additionally aim to assess the correlation between physician demographic characteristics and prescription of low dose aspirin.

Methods: We will send a questionnaire to general obstetrician gynecologists, maternal fetal medicine specialists, and family medicine physicians in the Rio Grande Valley who care for pregnant women with preeclampsia. The questionnaire will assess knowledge of guidelines for the use of low dose aspirin to reduce the risk of preeclampsia, timing of low dose aspirin initiation and discontinuation, attitudes towards this preventive intervention, and frequency of low-dose aspirin prescription. We will use SPSS to analyze data. We will perform Chi-Square or Fisher´s exact tests to compare population proportions. We will analyze the differences between provider types and low dose aspirin practices using ANOVA tests. We will perform regression analysis to assess the impact of provider characteristics on low dose aspirin practices.

Impact of an OBGYN Hospitalist Model on Trial of Labor after Cesarean Section in an Integrated Academic/Community Hospital Setting

Bianca Ibarra, DO & Nazanin Ahmadieh, DO, MPH
Faculty Mentor: Denise De Los Santos, MD
Additional Mentor: Tony Ogburn, MD

Background: Repeat cesarean section is associated with increased risk of thromboembolism, infection, abnormal placentation, intraoperative surgical complications, blood loss, and transfusion compared to vaginal delivery. The dictum "once a cesarean always a cesarean" was the standard for many years. However, multiple studies have demonstrated that a Trial of Labor After Cesarean (TOLAC) with subsequent Vaginal Birth after Cesarean (VBAC) can be safely accomplished in many patients. A major barrier to the availability of TOLAC/VBAC is the reluctance of providers and institutions to offer TOLAC due to guidelines from the American College of Obstetricians and Gynecologists (ACOG) requiring a full surgical team, including an obstetric surgeon and anesthesia provider, immediately available during the TOLAC. The OB/GYN Hospitalist (OBGH) model of practice provides for an OB/GYN surgeon to be in the hospital at all times. Feldman et al. demonstrated increased rates of VBAC after implementation of OBGH programs in hospitals in Southern California. An OBGH service was implemented at Women's Hospital Renaissance (WHR) in September 2016, primarily to provide in house coverage of the residents as required by the Accreditation Council on Graduate Medical Education (ACGME). Before implementation of the OBGH program TOLAC was rarely offered as the primary OB/GYN provider was required to stay in the hospital once the patient's cervical dilation was more than 4 cm.

Objectives: We hypothesize an OBGH model in an integrated academic/community hospital results in an increase in the TOLAC and VBAC rates. We also will compare maternal and neonatal morbidity rates associated with TOLAC/VBAC at WHR to the reported rates in the literature.

Methods: A retrospective chart review included women at WHR with a cephalic term (>37-week gestational age) singleton pregnancy who had trial of labor after cesarean section. Billing codes were used to generate a patient list of all cesarean sections during the periods below:

-Pre- OBGH service data—July 2013-June 2015
-Post- OBGH service data—July 2017-June 2019

Inclusion criteria included term, cephalic, singleton pregnancies who underwent a trial of labor. Repeat cesarean sections without trial of labor, multi-gestation and preterm labor were excluded. Maternal and neonatal morbidity was recorded including uterine rupture, maternal infection, postpartum hemorrhage, blood transfusion, intensive care unit admission, hysterectomy, other major intraoperative complications, APGAR score <7 at 1 minute and 5 minutes after birth, and NICU admission.

Results:
A total of 900 potential patients were identified during the time period. Chart review and data collection is currently underway.

Resident Research Idea Workshop

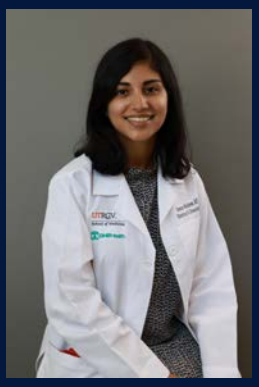
The Effect of Implementing an OB Trauma Activation Policy on Maternal - Fetal Outcomes

Renee Ridley, MD, PhD, MSN
Faculty Mentor: Efraim Vela, MD

Background: The overall incidence of trauma during pregnancy has not been well-established. A systematic review in 2013, however, estimated rates for non-intentional and intentional causes. The most common non-intentional causes are motor vehicle crashes (207/100,000 live births), followed by falls/slips (48.9/100,000 live births), toxic exposure (25.8/100,000 person-years), and burns (0.17/100,000 person-years). Intentional causes include domestic violence (8,307/100,000 live births), penetrating trauma (3.27/100,000 live births), homicide (2.9/100,000 live births) and suicide (2/100,000 live births).
Trauma in pregnancy is associated with significant morbidity and mortality. The most common complications include preterm labor/delivery, preterm pre-labor rupture of membranes, placental abruption, fetal-maternal hemorrhage, and rarely, uterine rupture. As a result, prompt specialty care is critical with regard to admission assessment and treatment processes that lead to the best maternal and fetal outcomes. Although trauma teams are well-equipped to handle the primary survey of women of childbearing age, they are not trained in the specialty care unique to OBGYN. A dual patient challenge, such as that arising during trauma in pregnancy, cannot wait sequentially until maternal stabilization has occurred.

Objective: To evaluate the effect of implementing an OB Trauma Activation Policy which places an OBGYN team at the bedside within 15 minutes on maternal and fetal outcomes.

Methods: A Continuous Quality Improvement (CQI) approach will be used to review the Doctors Hospital at Renaissance (DHR) policy, Trauma Team Activation and Notification which began in 2017, and DHR Standard Operating Procedure, OB Trauma Activations which began in 2020. In conjunction with the Director of DHR Labor & Delivery, Antepartum, & Triage, the Trauma Program Director, and an information analyst from the Health Records Department, focus will be given to strategies that have been used to improve the existing policy and procedure. After review of the literature, any consensus strategies will be proposed and ultimately evaluated if approved. A time series design will be used to evaluate maternal/fetal outcomes prior to and after initiation of these guidelines. Retrospective collection of maternal and fetal data from both DHR-Main and DHR-Women's Hospital will occur from January 1, 2014 through prospective collection ending January 1, 2023. ICD-9 codes, EMR-Cerner, GE Centricity, and DHR delivery logs will be used to classify injuries and outcomes. Data will include demographics, trauma types, maternal/fetal/neonatal diagnoses, diagnostics, and trauma care specific to healthcare facility, provider type, and timing relative to process. Data from pregnancies less than 20 weeks will be excluded. Demographic data will be analyzed using mean, SD, percentages, and range. Time series trends will be analyzed using time series analysis, with monthly data points over the 9-year span of data.



Does Initiating a Standardized Hypertensive Emergency Protocol Improve Time to Treat Severe Range Blood Pressures and Maternal Outcomes Associated with Hypertensive Disorders in Pregnancy?

Susanne Mathew, MD
Faculty Mentor: Elissa Serapio, MD, MPH
Co-Researchers/Assistans: Vania Nwokolo, MS, Chelsea Peterson, MS

Background: Hypertensive disorders in pregnancy account for 14% of maternal deaths worldwide and are the second most common cause of worldwide maternal morbidity and mortality. Despite advances in medical care, the rate of hypertensive disorders in pregnancy has increased over the past two decades, which has been attributed to increased prevalence of risk factors, such as obesity and advanced maternal age.

The American College of Obstetrics and Gynecology (ACOG) recommends treatment with antihypertensives for acute-onset severe hypertension, defined as systolic and/or diastolic blood pressures ≥ 160/110 mm Hg, if confirmed to be persistent at a 15 minute-interval recheck. Prompt treatment of elevated blood pressures in pregnant women is essential in reducing maternal morbidity and mortality. Antihypertensives should be administered as soon as possible once severe-range blood pressure criteria are met, and at least within 30-60 minutes.

Quality improvement initiatives based on these practice guidelines enable labor and postpartum units to diagnose, treat, and monitor severe hypertension efficiently and have been shown to decreases maternal morbidity and mortality.

Objectives: The purpose of this study is to determine whether initiation of a standardized hypertensive emergency protocol and preeclampsia medication toolkits at Doctors Hospital at Renaissance (DHR) Women's Hospital has improved the treatment of severe hypertension in pregnant and postpartum patients and overall maternal morbidity and mortality.

Methods: We plan a retrospective cohort study to assess the effectiveness of a three-phrase quality improvement initiative at DHR Women's Hospital that aimed to improve timely response and treatment of severe peripartum hypertension. In December 2016, a Hypertensive Emergency order set was implemented for physicians to complete with verbal or written orders. In August 2019, standing orders were implemented, empowering nurses to begin treatment of hypertensive emergencies with preselected medications for patients meeting criteria. In January 2020, "preeclampsia toolkits" were developed so that relevant emergency medications would be readily available. We will collect data via chart review from our electronic medical record system prior to Phase One (historical control) and after implementation of the QI initiative (study group). The patient population will include pregnant patients admitted to labor and delivery, antepartum, and triage and postpartum patients in DHR's Women's Hospital who have an admission diagnosis for any hypertensive disorder or at some point during their hospitalization have a sustained severe range blood pressure measurement. All data will be deidentified. The primary outcome will be time from severe-range blood pressure measurement to administration of the anti-hypertensive agent. We will also evaluate other quality of care indicators, maternal outcomes, and neonatal outcomes. We plan to perform a multiple linear regression to evaluate the primary outcome comparing time to treatment between the historical control group and post-initiative group(s). We will likely need to control for several covariates, including physician, type of hypertensive diagnosis, and gestational age.

Perceptions Amongst Immigrant Women Receiving LARC in a Mobile Clinic Setting

Emily LaBerge, MD, MPH
Faculty Mentor: Saul Rivas, MD, MSPH
Co-Researchers/Assistants: Candace Robledo, PhD, MPH

Background: Mobile health units are emerging at a rapid rate in the United States and continue to prove to be effective means of delivering health care services. However, there is still very little research regarding LARC method provision in a mobile health setting, including patient satisfaction. Multiple studies conducted in African nations have reported high satisfaction rates from women receiving such services in a mobile setting, but limited data exists in the United States. Additionally, information is lacking regarding LARC device implementation among immigrant women in a mobile setting. The UniMóvil clinic was established in 2015 with the goal of delivering reproductive health services, including LARCs, to the vulnerable Rio Grande Valley population.

Objectives: The study proposed is a retrospective cross-sectional survey analysis of perceptions of LARC placement in a mobile clinic setting. De-identified surveys previously collected on the UniMóvil clinic by the Healthy Families Project for quality improvement will provide information of interest extracted for analysis. The intent is to evaluate the satisfaction and acceptance of LARC placement in a mobile setting in the Rio Grande Valley population. We hypothesize women will express overall satisfaction in receiving LARC placement in a mobile clinic setting.

Infant Feeding in the "Breast is Best" Era: How Healthcare Providers Contribute to Maternal Guilt

Emily Quick Bear, MD
Faculty Mentor: Denise De Los Santos, MD

Background: Multiple studies have shown the benefits of breastfeeding for maternal and infant health. However, while breastfeeding has many benefits, not all women choose to or are able to breastfeed for various reasons. Only recently has research begun to look at the experiences of women who bottle feed in an environment that heralds the motto “breast is best”. Studies have shown that women who formula feed identify feeling “guilty” and “stigmatized” as a result of their choice. Furthermore, a study showed that women who desire to breastfeed but were unable to meet this expectation were at an increased risk of postpartum depression symptoms. A study looking at identified sources of guilt experienced by women showed that women identified external sources of guilt originating mainly from other mothers and healthcare providers. While breastfeeding provides many health benefits, as healthcare providers we should find ways to support women in the postpartum period regardless of their feeding choices.

Objectives:

1. To determine the extent to which healthcare providers contribute to feelings of guilt in women who formula feed
2. To determine how we can change the way healthcare providers approach breastfeeding education and promotion to alleviate these feelings and provide support to all our postpartum patients

Methods: We propose a survey for women to be completed postpartum prior to discharge from the hospital and again at the 2 week postpartum visit. The 2 week postpartum questionnaire is to be completed either in clinic or via phone call if the patient is unable to be seen in person. The questionnaire will involve a combination of dichotomous questions (ex. Did you talk to a physician about infant feeding during your postpartum hospital stay?) and a 5-point Likert scale. The survey will focus on how the patient viewed their interaction with the physician and the degree to which this affected their overall infant feeding experience. We will include women who underwent a term delivery resulting in a viable newborn following singleton gestation, not admitted to NICU during the postpartum period.

Faculty Scholarly Activity 2019-2020

Tony Ogburn, MD

Professor and Chair

Manuscripts

1. Negussie D, Bekele D, Curran D, Ogburn T, Peterson H, Clem F, Chescheir N. Ethiopian and American Collaboration: Process, Accomplishments, and Lessons Learned. Obstet Gynecol,135(3):703-708. PMID: 32028496

Abstracts

1. Evans M, Zite N, Ogburn T, Espey E. (2019). Effect of States' Insurance Expansion Status on LARC Training in OB/GYN Residency Programs. The APHA's 2019 Annual Meeting and Expo, Philadelphia, PA.

Presentations

1. Negotiating for Your Future: Resources for Getting to Yes! CREOG/APGO Annual Meeting, Orlando, FL, February 28, 2020.
2. Women's Health on the US-Mexico Border: A View from the Lower Rio Grande Valley, UNM/ACOG/ACNM Update on Women's Health, Albuquerque, NM, February 22, 2020.
3. LARC: A Hand's on Workshop. 6th International Conference on Indigenous Women's Health, Albuquerque, NM, February 20, 2020.
4. Update on AUB: Make it Stop! 6th International Conference on Indigenous Women's Health, Albuquerque, NM, February 20, 2020.
5. LEEP 101, MD Anderson Cervical Cancer Prevention Course, Houston, TX, December 14, 2019.
6. John C. Jennings Lectureship at the ACOG Districts IV, VII, XI Annual Meeting, Cost of Obtaining a Residency in Ob/Gyn, What Can We Do? New Orleans, LA, September 27, 2019.
7. MD Anderson Project ECHO Conference on Cervical Cancer Prevention, Management of Cervical Dysplasia in Pregnancy, Houston, TX, August 23, 2019.
8. Diabetes in Indian Country Conference, Contraception: What's New in 2019, Oklahoma City, OK, August 6, 2019.

9. ACOG/IHS Postgraduate Course on Women's Health for AI/AN Providers, ALSO – Case Studies, Contraception: What's New in 2019, Urinary Incontinence – Evaluation and Non-Surgical Treatment, First Trimester Pregnancy Complications, Oklahoma City, OK, August 4-5, 2019.
10. UTHSCSA Joseph Seitchik Memorial Lecture and Resident Paper Day, Ob/Gyn Resident Education: Time for a Change? San Antonio, TX, June 21, 2019.
11. 27th Annual Julian Wells Lectures and Scientific Session, Expanding LARC Access in Texas: Lessons from the Rio Grande Valley, Baylor Scott and White, Dallas, TX, June 14, 2019.
12. MD Anderson Cancer Center/Su Clinica/Rice University/|UTRGV Cervical Cancer Prevention Course, LEEP 101; LEEP Gel Models, Edinburg, TX, May 18, 2019.
13. ACOG Gibbons Student Program, Panelist – Selecting an Ob/Gyn Residency, Nashville, TN, May 3, 2019.

Jennifer Salcedo, MD, MPH, MPP

Associate Professor and Residency Program Director

Manuscripts

1. Chin, J., Salcedo, J., Raidoo, S. (2020). Over-the-counter availability of levonorgestrel emergency contraception in pharmacies on Oahu. Pharmacy, 8(1). In press.
2. Friedlander, E.B., Soon, R., Salcedo, J., Tschann, M., Fontanilla, T., Kaneshiro, B. (2019). Text message link to online survey: a new highly effective method of longitudinal data collection. Contraception, Epub ahead of print. PMID: 31884078.
3. Stevens, K., Elia, J., Kaneshiro, B., Salcedo, J., Soon, R., Tschann, M. (2020). Updating fetal foot length to gestational age references: a chart review of abortion cases from 2012 to 2014. Contraception, 101(1):10-13. PMID: 31302119.

Abstracts

1. Salcedo, J., Vela, E. (2020). BOLDly Addressing Border Health Needs in Obstetrics & Gynecology Residency. University of Southern California 17th Annual Innovations in Medical Education Conference, San Gabriel, CA [oral abstract, award recipient, Stephen Abrahamson Award for Innovation – Best of Cool Ideas].
2. Salcedo, J., Vela, E., Cunningham, J. (2019). BOLDly addressing border health needs in obstetrics & gynecology residency training – the UTRGV Border & Underserved Leadership Development (BOLD) Track. University of Texas Rio Grande Valley (UTRGV) Research Symposium 2019 – Health Disparities: Community Engagement, McAllen, TX [poster].
3. Salcedo, J., Cunningham, J., Vela, E. (2019). BOLDly addressing border health needs in obstetrics & gynecology through a dedicated residency track. National Resident Matching Program (NRMP) Transition to Residency: Conversations Across the Medical Education Continuum Conference, Chicago, IL [poster].
4. Salcedo, J., Cunningham, J., Vela, E. (2019) BOLDly addressing border health needs in obstetrics & gynecology residency training – the UTRGV Border & Underserved Obstetrics & Gynecology Leadership Development (BOLD) Track. American Medical Association (AMA) ChangeMedEd 2019, Chicago, IL [poster].
5. Vega, A., Choi, Y.J., Salcedo, J. (2019). Over-the-counter access to emergency contraception in South Texas: does over-the-counter mean ready to buy? Society of Family Planning Annual Meeting, Los Angeles, CA [poster, award nominee].
6. Moayedi, G., Stevens, K., Tschann, M., Salcedo, J., Soon, R., Kaneshiro, B. (2019). Intranasal fentanyl for pain control during first-trimester uterine aspiration: a randomized controlled trial. Society of Family Planning Annual Meeting, Los Angeles, CA [oral abstract].

7. Chin, J., Raidoo, S., Salcedo, J. (2019). Over-the-counter access to levonorgestrel emergency contraception on Oahu. National Medical Association Annual Convention and Scientific Assembly, Honolulu, HI [oral abstract as part of the Resident Reporter Leadership Program, 2nd prize winner].

Presentations:

1. Meeting Community Needs Through Residency Training Tracks: Transforming Vision Into Reality [75-minute workshop]. Association of American Medical Colleges (AAMC) Integrating Quality Conference, Kansas City, Missouri. 2020. [conference cancelled due to COVID-19].
2. The 3 Ps of Emergency Contraception [ed talk]. American College of Obstetricians and Gynecologists (ACOG) Annual Clinical and Scientific Meeting, Seattle, Washington. 2020. [conference cancelled due to COVID-19].
3. 4. Contraception 101- Supporting Teens by Dispelling Myths and Providing Evidence-Based Advice. The Texas Campaign To Prevent Teen Pregnancy 9th Annual Symposium; San Antonio, TX. April 2020- Meeting postponed due to COVID-19.[Oral Presentation]

Elissa Serapio, MD, MPH

Assistant Professor and Assistant Program Director

Presentations:

1. Induction vs. D&E: Management of intrauterine fetal demise and other indications for uterine evacuation. University of Texas Rio Grande Valley Obstetrics and Gynecology Department Grand Rounds. November 1, 2019.
2. Induction vs. D&E: Management of intrauterine fetal demise and other indications for uterine evacuation. University of Alabama, Birmingham Obstetrics and Gynecology Department Grand Rounds. April 26, 2019.
3. The 3 Ps of Emergency Contraception [ed talk]. American College of Obstetricians and Gynecologists (ACOG) Annual Clinical and Scientific Meeting, Seattle, Washington. 2020. [conference cancelled due to COVID-19].
4. Contraception 101- Supporting Teens by Dispelling Myths and Providing Evidence-Based Advice. The Texas Campaign To Prevent Teen Pregnancy 9th Annual Symposium; San Antonio, TX. April 2020- Meeting postponed due to COVID-19.[Oral Presentation]

Saul Rivas, MD, MSPH

Assistant Professor and Clerkship Director

Abstracts

1. Rivas, SD, (2020, April – Meeting postponed due to COVID19). Caring for Underserved Populations with a Focus on Women Living on the Border. The Society for Academic Specialists in General Obstetrics and Gynecology 8th Annual Meeting; Seattle, WA. [Panelist]

Presentations:

1. Reducing Teen Pregnancy Through Effective Contraception: Best Practices for IUDs, Implants, and Emergency Contraception. South Texas Adolescent Health Summit; Edinburg, Texas. August 2019. [Oral Presentation]
2. Community Forum: Healthy Families Community Engagement Program. UTRGV School of Medicine Research Symposium; Edinburg, TX. September 2019. [Oral Presentation]
3. Contraception for Adolescents: Best Practices for IUDs, Implants, and Emergency Contraception. Doctors Hospital at Renaissance 11th Annual Medical Education Conference; Edinburg, TX. September 2019. [Oral Presentation]
4. Contraception 101- Supporting Teens by Dispelling Myths and Providing Evidence-Based Advice. The Texas Campaign To Prevent Teen Pregnancy 9th Annual Symposium; San Antonio, TX. April 2020- Meeting postponed due to COVID-19.[Oral Presentation]
5. Implementation of Inpatient Postpartum Long-Acting Reversible Contraception Program: A Multi-Site Analysis of Hospital Costs. Academy Health Research Meeting; Washington, DC. June 2019.[Poster Presentation]
6. Immediate Postpartum Long Action Reversible Contraception at a Private South Texas Hospital. ACOG District XI and TAOG 2019 Joint Annual Meeting; New Orleans, LA. September 2019. [Oral Presentation]

Local Workshops & Seminars

1. Colposcopy 101. Cervical Cancer Prevention LOCAL (LEEP, Oncology, Colposcopy At Local Sites) Course. University of Texas Rio Grande Valley. Edinburg, TX. [Workshop]. May 2019.

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School of Medicine

The University of Texas Rio Grande Valley (UTRGV) Obstetrics and Gynecology Residency Program at Doctors Hospital at Renaissance (DHR) is dedicated to training outstanding, well-rounded, socially conscious physicians who will serve as leaders within general obstetrics and gynecology and its sub-specialties, as well as their communities. We train residents to provide the type of care they would want their families to have: compassionate, comprehensive, high quality, and cutting edge. Our residency program began the 2015-2016 academic year as part of a long-standing vision of many community and academic leaders throughout Texas and the Rio Grande Valley of a major university center equipped to address the healthcare and educational needs of the area's 1.3 million residents and beyond. The program is affiliated with the UTRGV School of Medicine, which started its first class in 2016.