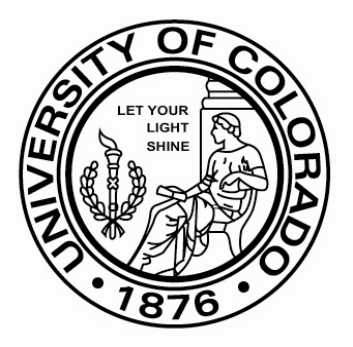
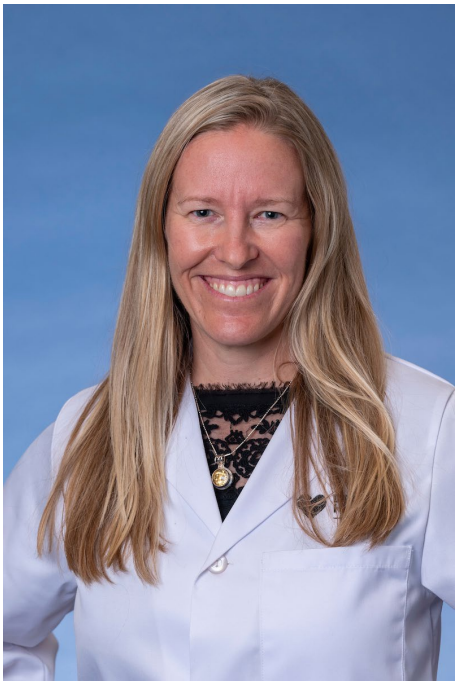
University of Colorado

Department of
Obstetrics & Gynecology



Resident Research Day
June 2, 2023

Guest Speaker



Gretchen Heinrichs, MD, FACOG, DTMH

Christus Saint Vincent Hospital, Santa Fe NM
Department of Obstetrics and Gynecology

Gretchen Heinrichs, MD, FACOG, DTMH (she/her/hers) grew up in the Midwest, completed medical school and OBGYN residency at University of Colorado, and was an Associate Professor of OBGYN at Denver Health 16 years, working with refugees, immigrants, and providing underserved care in Colorado.

She has a degree in Clinical Tropical Medicine from the Gorgas Institute, has worked extensively in global health with communities in Mexico, India, Rwanda, the Philippines, and Guatemala and with Doctors Without Borders in Nigeria. She was awarded a Federal DOJ grant and built a program to care for survivors of Female Genital Cutting in Denver, Colorado which is still providing clinical and psychological support to patients.

She spent the last year working multiple OB hospitalist jobs in Tucson AZ, Alaskan Native Medical Center in Anchorage, and with Christus Saint Vincent Hospital in Santa Fe, NM, where she has now taken a permanent position.

Gretchen loves doing anything outdoors and exploring this wonderful world with her husband. Yoga keeps her sane, grounded, and open-hearted.

RESIDENT RESEARCH DAY
SCIENTIFIC PROGRAM

Resident Research Day Award Committee

Katlynn Adkins, MD
Marsha Guess, MD
Kent Heyborne, MD
Lauren Rascoff, MD
Alex Mastroyannis, MD, MSCE

RESIDENT RESEARCH DAY
SCIENTIFIC PROGRAM

Join via Zoom

Breakfast
7:30-8:00AM

Welcoming Remarks
8:00-8:15AM

Christine Conageski, MD, MCSC
Aaron Lazorwitz, MD, MSCS
Claire Schultz, MD, MPH

RESIDENT PRESENTATIONS

8:15-8:25AM

Clinic Versus the Operating Room: Determining the Optimal Setting for Dilation and Curettage for Management of First Trimester Pregnancy Failure

Resident: Hilary Novatt, MD
Primary Mentor: Stefka Fabbri, MD, MPH
Collaborators: Karilynn Rockhill, MPH; Elaine Stickrath, MD; Meredith Alston, MD

Background: There is no clear guidance for the optimal setting for dilation and curettage (D&C) for the management of first trimester pregnancy failure. Identifying patients who are at risk of clinically significant blood loss at the time of D&C may inform a provider's decision regarding the setting for the procedure. We aimed to identify risk factors associated with blood loss ≥200 mL at the time of D&C.

Methods: This was a retrospective cohort study of patients diagnosed with first trimester pregnancy failure at gestational age ≤11 weeks who underwent surgical management with D&C at a single safety net academic institution between 4/2016 and 4/2021. Patient characteristics and procedural outcomes were abstracted. Women with <200mL versus ≥200mL estimated blood loss (EBL) were compared using descriptive statistics, chi-square for categorical variables, and Satterthwaite t-tests for continuous variables.

Results: A total of 350 patients were identified; of those, 233 met inclusion criteria and 228 had non-missing outcome data. Mean gestational age was 55 days (SD 9.4). Thirty one percent (n=70) had EBL ≥200mL. Younger patients (mean 28.7 years vs. 30.9, p=0.038), Latina patients (67.1% vs. 51.9%, p=0.006), patients with higher body mass index (BMI, mean 30.6 vs. 27.3 kg/m^2, p=0.006), and patients with pregnancies at greater gestational age (mean 59.5 days vs. 53.6 days, p<0.001) were more likely to have EBL ≥200mL rather than EBL <200mL. Additionally, patients with pregnancies dated by ultrasound (34.3% vs. 18.4%, p=0.007), those who underwent D&C in the operating room (81.4% vs. 48.7%, p<0.001), and those who underwent general anesthesia (81.4% vs. 44.3%, p<0.001) were more likely to have EBL ≥200mL.

Conclusions: In this study, patients with EBL ≥200mL at time of D&C differed significantly from those with EBL<200mL. In addition, undergoing D&C in the OR and undergoing general anesthesia was associated with EBL ≥200mL. It is possible that this is related to provider selection bias for the location of the procedure and/or to effects of general anesthesia on blood loss. Thus, additional studies are needed to assist providers in determining the recommended setting of D&C for early pregnancy loss.

8:25-8:30AM
Open Questions

8:30-8:40AM

Utility of Computerized Tomography (CT) in Pre-operative Decision Making in Women with Uterine Cancer

Resident: Alexzandra Adler, MD
Primary Mentor: Jill Alldredge, MD
Collaborators: Jeanelle Sheeder, PhD

Background: Complete surgical staging is considered the gold standard for understanding the extent of disease in uterine cancer to guide adjuvant therapies, however, a sensitive and specific pre-operative imaging modality to screen for high-risk features is valuable for surgical planning. This study investigated the utility of computerized tomography (CT) in pre-operative staging and its influence on surgical decision making.

Methods: This is a single institution retrospective cohort study. Study population included females aged 18-99 who underwent surgery at the University of Colorado Hospital between 2005-2021 and were found to have uterine cancer on final pathology. Data was collected on demographics, tumor characteristics, final pathologic tumor stage, operative procedures performed, complications, pre-operative CA-125 testing and/or imaging studies, and whether imaging altered clinical stage or surgical management. Descriptives were computed and bivariate statistics were used to compare groups.

Results: 427 patients met inclusion criteria. Pre-operative CA-125 was obtained in 50.8% of patients and was elevated (>35) u/mL) in 16.4% of those patients. 64.9% of patients underwent pre-operative CT of the abdomen/pelvis and 54.6% underwent pre-operative CT of the chest. Performance of pre-operative CT abdomen/pelvis showed concern for extra-uterine disease in 14.1% and showed a clinically relevant non-cancer-related finding in 5.1%. Women with non-endometrioid cancers were significantly more likely to have preoperative CT abdomen/pelvis (82.1% vs. 53.7%; $p< 0.001$) and more likely to have CT chest (70.2% vs. 44.4%; $p<0.001$). There were no significant associations of either intra-operative or post-operative 30-day complications with imaging or demographic variables. The completion of imaging was not associated with age, ethnicity, payor status, or location.
Pre-operative imaging resulted in a change from minimally invasive to an open approach for surgery in 5.2% of patients and conversion of sentinel node dissection to full node dissection in 5.3% of patients. Pre-operative CT abdomen/pelvis ($p=0.004$) was significantly associated with a pre-operative change in surgical plan. There was no significant association with pre-operative surgical change and histology type ($p = 0.218$).

Conclusions: In our cohort, CT can show evidence of extra-uterine disease and impact surgical decision making. CT abdomen/pelvis should be considered as a pre-operative tool to guide in surgical planning.

8:40-8:45AM
Open Questions

8:45-8:55AM

American Indian and Alaskan Native Access to Obstetrics and Gynecology Subspecialists: Findings from a National Mystery Caller Study in the United States

Resident: Adeola Akapo, MD
Primary Mentor: Tyler M. Muffly, MD
Collaborators: Claire Schultz, MD, MPH; Diego Coelho, Ph.D.

Background: Approximately 1.9 million American Indian and Alaska Natives (AI/AN) receive healthcare through Indian Health Service (IHS). Many of these clinics are near reservations which are often remote from urban medical centers. This geographic separation may contribute to the disparities in health outcomes seen for AI/AN individuals. The disparity may be more significant when accessing subspecialty obstetric and gynecology (OBGYN) care.

Objective: The objective of this study was to evaluate accessibility of subspecialty OBGYN care for AI/AN individuals by creating a map that illustrates the median driving time from IHS clinics to the nearest OBGYN subspecialist and determine the mean wait time for an appointment with these OBGYN subspecialists.

Methods: We performed a cross-sectional study using data from IHS and the National Plan and Provider Enumeration System to identify OBYGN subspecialists near IHS clinics. We plotted subspecialty clinics on a map and calculated the mean driving distance from IHS clinics to the nearest subspecialist. We also calculated the number of subspecialists within a 30-minute to a 240-minute driving radius of each IHS clinic. We used a mystery caller survey to calculate mean wait times for a non-emergent appointment for a patient with IHS insurance.

Results: The median driving time to the closest OBGYN subspecialist was 214 minutes (interquartile range [IQR] 107-290). There were 37 subspecialist OBGYN clinics within the specified driving distance. The median wait time for a new patient appointment was 13.6 business days [5-34].

Conclusions: There is a significant geographic barrier for Native people accessing OBGYN subspecialty care. Focused efforts to address geographic barriers, including expanding telemedicine and increasing the capacity of frontline OBGYN practitioners, may help minimize the disparities in outcomes for obstetric and gynecologic conditions.

8:55-9:00AM
Open Questions

9:00-9:10AM

Utility and Feasibility of Post-Traumatic Stress Disorder Screening Among Postpartum Patients at an Urban Safety-Net Institution

Resident: Erin Drake, MD
Primary Mentor: Claire Schultz MD, MPH
Collaborators: Nicole Larrea MD, MPH; Britney Tibbits PhD; Aaron Lazorwitz MD, MSc

Objective: Post-traumatic stress disorder (PTSD) is underdiagnosed peripartum. We aimed to evaluate the utility and feasibility of PTSD screening in postpartum patients at our urban, safety-net obstetrics clinics.

Methods: From August 2021 to February 2022, we administered two PTSD screening tools, the Primary Care PTSD Screen (PC-PTSD-5) and the modified Perinatal Posttraumatic Stress Disorder Questionnaire (PPQ-II), to all patients presenting for in-person visits within six months postpartum at three Denver Health clinics. Patients who screened positive on either instrument were offered evaluation by a behavioral health specialist. We performed descriptive statistics and used Chi-squared and Fisher's exact test to determine if demographic or obstetric characteristics were associated with positive PTSD screening. We reviewed patient utilization of behavioral health services within six months postpartum and verified diagnoses of PTSD.

Results: 364 of 376 (96.8%) patients presenting for in-person appointments during the study period completed screening. Thirty patients (8.4%) had a positive score on at least one instrument. Characteristics associated with positive PTSD screens included psychiatric diagnosis during pregnancy ($p< 0.001$), positive Edinburgh Postnatal Depression Screen (EPDS) peripartum ($p< 0.001$), and fetal/neonatal demise ($p=0.005$). Six (20.7%) patients with a positive PTSD screen did not have a positive postpartum EPDS. Seventeen (56.7%) of the thirty patients with a positive score on at least one screening instrument had a behavioral health visit within six months postpartum. Fifteen had behavioral health visits within our clinic system. Six of these fifteen patients (40%) had a verified diagnosis of PTSD.

Conclusion: Routine PTSD screening for postpartum patients is both feasible and clinically valuable. As not all patients with a positive PTSD screen had a positive EPDS, depression screening alone is not sufficient to identify all postpartum patients with mental health needs. Obstetric providers should consider integrating PTSD screening into routine perinatal care. Future research should focus on the creation of a single screening tool that can evaluate for preexisting and obstetric related PTSD simultaneously.

9:10-9:15AM
Open Questions

9:15-9:25AM

The Impact of Adjuvant Antihormonal Therapy Versus Observation on Recurrence of Borderline Ovarian Tumors: A Retrospective Cohort Study

Resident: Kelsey C. Goon, MD
Primary Mentor: Jill Alldredge, MD
Collaborators: Jeanelle Sheeder PhD; Miriam D. Post MD

Objectives: Adjuvant management of borderline ovarian tumors (BOT) after surgical diagnosis and staging is not standardized. While many patients undergo observation alone, some physicians have introduced the use of adjuvant antihormonal therapy for BOT, extrapolating from studies suggesting improvement in progression-free survival in the low-grade serous ovarian carcinoma population. We hypothesized that adjuvant antihormonal therapy after surgical diagnosis of BOT would improve progression-free survival compared to surveillance alone.

Methods: We performed a retrospective review for all women over the age of 18 with a pathologic finding of BOT at the University of Colorado between September 2002 and March 2022. We compared management with antihormonal therapy to surveillance alone. We excluded patients with

concurrent malignancy. Data was abstracted from electronic medical records. Groups were compared by bivariate statistics, a Kaplan Meier model to estimate survival times, and a Cox proportional hazard model to compare progression-free survival.

Results: We identified 193 patients with BOT. Of these, 17 (8.8%) were treated with adjuvant antihormonal therapy and 24 (12.4%) recurred. Classes of antihormonal therapy administered included selective estrogen receptor modulators (n=4, 23.5%), oral progestins (n=5, 29.4%, aromatase inhibitors (n=7, 41.2%), and levonorgestrel intrauterine devices (n=1, 5.9%). Patients treated with antihormonal therapy were more likely to be obese (64.7% vs 37.9%, *p=0.032*), have advanced-stage disease (70.6% vs 11.4%, *p<0.001*), serous histotype (94.1% vs 59.4%, *p=0.005*) or microinvasion (29.4% vs 9.7%, *p=0.030*), and less likely to have undergone fertility-sparing surgery (18.8% vs 51.7%, *p=0.012*). Use of antihormonal therapy was not associated with a difference in progression-free survival (11.8% vs 12.5%, *p=0.93*) or overall survival (94.1% vs 97.7%, *p=0.37*).

Conclusions: We found that adjuvant antihormonal therapy for BOT is not associated with progression-free survival. Our cohorts differed on several patient, disease, and operative characteristics. Further studies could evaluate whether there exists a subpopulation of patients with BOT in whom antihormonal therapy is worthwhile. Additional studies examining the differences between BOT and low-grade serous ovarian carcinomas may also inform those more likely to benefit from antihormonal therapy.

9:25-9:30AM
Open Questions

9:30-9:45AM
BREAK

9:45-9:55AM

Association Between Follicle Count at Time of Intrauterine Insemination and Perinatal Outcomes

Resident: Nicola Hendricks, MD
Primary Mentor: Cassandra Roeca, MD
Collaborators: Laura Grau, MPH; Mary D. Sammel, ScD

Background: Ovarian stimulation agents, such as clomiphene citrate and letrozole, can help recruit supernumerary follicles resulting in higher estradiol levels. High estradiol levels on the day of hCG administration are associated with small for gestational age infants.

Objective: The aim of this study was to examine whether there is an association between follicle count at the time of intrauterine insemination (IUI) and perinatal outcomes.

Methods: We performed a retrospective cohort study that identified patients within the UC Health system whose IUI outcome was a singleton live birth between Jan 2017- Dec 2020. The primary outcome was a good birth outcome (GBO), defined as a singleton live birth at ≥37 weeks gestational age with appropriate for gestational age birth weight. Differences in parent characteristics by follicle count >14mm (0-1 vs 2+) were assessed using ANOVA or Chi-square tests using data from the first cycle per patient. We assessed whether follicle count was associated

with dichotomous clinical outcomes using log-binomial generalized estimating equations to incorporate data from multiple cycles.

Results: We collected data from 178 cycles from 130 patients. Of these cycles, 84 (47.2%) had 0-1 follicles, while 94 (52.8%) had 2+ follicles. There were no significant differences in patient age, body-mass index, infertility diagnosis, same sex couple, hypertension, or diabetes between those with 0-1 follicles and those with 2+ follicles. There was a significant difference in the agent used (p=0.025) with 56% of patients with 0-1 follicles on letrozole and 30% on clomiphene citrate, and 44% of patients with 2+ follicles on letrozole and 47% on clomiphene citrate. GBO prevalence was 60% among those with 0-1 follicles and 57% among those with 2+ follicles. There was not a statistically significant association between follicle count and GBO in the unadjusted and adjusted models.

Conclusions: In this study, no association was found between follicle count at the time of intrauterine insemination and perinatal outcomes. Future studies should reassess these relationships with larger samples.

9:55-10:00AM
Open Questions

10:00-10:10AM

Application of the Person-Centered Contraceptive Counseling Scale in a Diverse Adolescent Population

Resident: Cosette Kathawa, MD
Primary Mentor: Rebecca Cohen, MD, MPH
Collaborators: Stephanie Teal, MD, MPH; Jeanelle Sheeder, MSPH, PhD

Background: Patient-centered measures can assist in quality-improvement efforts, particularly those aimed at improving the patient experience. Interpersonal communication between provider and patient forms a large part of the patient experience, especially in the context of family planning care. The Person-Centered Contraceptive Counseling scale (PCCC) is a measure of patient-centeredness and can be used to assess the quality of contraceptive care.

Objective: The objective of this study was to compare the PCCC scores of White and non-White adolescents receiving contraceptive counseling.

Methods: Participants were recruited from BC4U, a Title X-funded family planning clinic providing free reproductive healthcare to adolescents in Colorado. After a clinic visit, patients were asked to complete a survey, which included demographic information and the four-item PCCC. Current method of contraception was also collected. The surveys were distributed in English and Spanish. PCCC scores (the maximum score of 20 versus <20, as was used in the initial development of the PCCC) were compared between groups using the Mann-Whitney test.

Results: 135 surveys were collected between March 2022 and January 2023. 26 surveys were excluded as the visits were for non-contraceptive concerns or because of incomplete surveys. 109 surveys were analyzed. 23 participants were non-Hispanic White, 63 were Hispanic, 11 were non-Hispanic Black, 4 were Asian, and 7 were more than one race or ethnicity. 81% of non-White participants had a PCCC score of 20 versus 96% of White participants (p=0.09). White participants were significantly less likely to identify as heterosexual compared to non-White participants (p=0.02).

Conclusions: In this diverse adolescent population, PCCC scores were high across all racial and ethnic groups, with no significant differences in scores between groups. Further research is needed to identify specific facets of interpersonal communication responsible for these positive outcomes, as well as gain additional insight from patients less satisfied with their experience.

10:10-10:15AM
Open Questions

10:15-10:25AM

COVID Infection in Pregnancy and Associated Incidence of Hypertensive Disorders in Pregnancy and Fetal Growth Restriction

Resident: Delisa Quayson, MD
Primary Mentor: Shane Reeves, MD
Collaborators: Odessa Hamidi, MD; Ginger Lijewski, MPH; Jeanelle Sheeder, PhD; Alexis Gerk, MD

Background: Infection with Sars-CoV-2 (COVID-19) results in a hyperinflammatory state which may be implicated in placental injury and placentally mediated diseases such as hypertensive disorders in pregnancy (HDP) and fetal growth restriction (FGR). We hypothesized that there was an increased incidence of HDP and FGR in pregnancies affected by COVID-19 when compared to controls matched for factors associated with placental disease.

Methods: We conducted a retrospective cohort analysis of patients who delivered at UC Health between 2015 and 2021. The study group included any pregnant patient with a positive PCR test for COVID-19 with data available regarding delivery. We then matched these cases with control patients collected from the PARITY database, which includes all patients delivered in the UCHealth system from 2015-2019. The controls were matched 1:1 with cases for body-mass index, race/ethnicity, smoking status, maternal age at delivery, and history of preeclampsia in a prior pregnancy. Patients with chronic hypertension, multiple gestations, and fetal anomalies were excluded. The primary outcome was the rate of HDP and/or FGR in control vs. COVID-19 groups. Appropriate bivariate analyses were used to compare groups.

Results: We identified 269 patients with COVID-19 during our selected time period and matched 269 controls. The primary outcome of HDP and/or FGR was 32.0% in COVID-19 infected patients vs. 29.7% in controls ($p = 0.31$). There was no difference in the individual rates of HDP or FGR when comparing the study group and controls. Additionally, secondary analysis showed no statistical difference in the gestational age at delivery, preterm delivery rate, mode of delivery, birthweight, or NICU admission rate.

Conclusions: When matching for factors known to be associated with placentally mediated disorders in pregnancy, we found no statistically significant difference in the incidence of HDP or FGR between patients infected with COVID-19 vs. uninfected controls.

10:25-10:30AM
Open Questions

10:30-10:40AM

Sexual Practices and Barriers to Sexual Health Interventions in Transgender and Gender-Diverse Patients

Resident: Melyssa D Wilde, MD
Primary Mentor: Veronica I. Alaniz, MD, MPH

Objective: To elucidate sexual practices and function as well as identify sexual health concerns and barriers to accessing sexual health interventions in gender-diverse individuals.

Method: We developed a gender-inclusive survey in reference to two validated sexual function surveys. Our survey was distributed to individuals from the UC Health Integrated Transgender Program and their Community Advisory Board. Content analysis was performed based on gender identity. Categorical variables were analyzed using Pearson Chi-square and ANOVA tests. Qualitative data was analyzed for thematic content. Gender identities outside of cis-gendered male or female were included.

Results: 72 participants met inclusion criteria. Gender-affirming interventions were endorsed by 100% of transmasculine, 94.7% of transfeminine, and 71.4% of non-binary individuals (p=0.003). Complications of gender-affirming surgery precluding sexual activity occurred in 9.1% of transmasculine, 6.3% of transfeminine, and 12.5% of non-binary individuals. Sex with partners of multiple genders was endorsed by 51.7% of participants. Current level of sexual activity caused distress in 35% of participants. Across genders, 91.8% were able to achieve a satisfying orgasm; 46.9% endorsed needing to stop or avoid sexual activities due to physical pain. Up to 80% of transmasculine, 36.4% of transfeminine, and 64.7% of non-binary individuals endorsed needing to stop having intercourse due to emotional pain (p=0.039). Across genders, satisfaction regarding sexual activity was achieved sometimes to most times while satisfaction regarding physical arousal was achieved most times. Factors causing distress included changes in libido, inability to engage in desired sexual activities, and pressure to use natal genitalia. Forty-six percent of participants talked with a provider about sexual concerns; of those, 75.8% talked with their primary care provider and 57.6% talked with a specialist providing transgender care. Barriers to discussing sexual health included LGBTQ-competent provider availability, concerns regarding loss of access to gender-affirming care, and embarrassment.

Conclusion: To best serve gender-diverse patients, providers should discuss desired types of sexual activity, causes of emotional and physical distress, and be aware of barriers this population faces in discussing sexual health.

10:40-10:45AM
Open Questions

10:45-11:00AM
BREAK

11:00-11:30AM
Guest Speaker
Gretchen Heinrichs, MD

11:30-12:00pm

LUNCH & AWARDS CEREMONY

Faculty, Residents & Fellows Medical Student Teaching Awards

AAGL Excellence in Minimally Invasive Gynecology Resident Award

Resident Award for Excellence in Female Pelvic Medicine & Reconstructive Surgery

The Ryan Program Resident Award for Excellence in Family Planning

Society of Gynecologic Oncology Resident Award

Society for Maternal Fetal Medicine Resident Award for Excellence in Obstetrics

Society of Reproductive Endocrinology and Infertility Resident Award for Excellence in REI

National Society of OB-GYN Hospitalists Outstanding Resident of the Year Award

The North American Society for Pediatric and Adolescent Gynecology Outstanding Resident Award

Diversity, Equity & Inclusion Awards

Society for Academic Specialist in General OB-GYN Faculty Award

Association of Professors of Gynecology & Obstetrics Excellence in Teaching Award

William D. Schlaff Faculty Mentorship Award

Ronald S. and Jane Holtz Gibbs Award for Most Outstanding Research Presentation

Resident Publications 2022-2023

Akapo A, Anishchenko K, Lefkowits C, Greenwood AL. Therapeutic options for brain metastases in gynecologic cancers. Curr Treat Options Oncol 2022; 23(11): 1601-1613.

Archer S, Alaniz VI, Huguelet. Surgical management of a giant paratubal cyst: a case report and review of the literature. Annals of Pediatric Surgery 2023; 25: P215.

Bonfiglio G, Loh R, Simpson SA, Fish LE. Housing status as a predictor for outpatient care following an emergency or urgent care encounter with a behavioral health diagnosis: a multivariable analysis. Community Ment Health J 2022: online ahead of print.

Friedman JC, Sheeder J, Lazorwitz A, Polotsky AJ. Herbal supplement use among reproductive-aged women in an academic infertility practice. F S Rep 2022; 4(1): 104-11.

Goon KC, Sheeder J, Post MD, Alldredge J. The impact of adjuvant antihormonal therapy versus observation on recurrance of borderline ovarian tumors: a retrospective cohort study. Gynecol Oncol Rep 2023; 47: 101180.

Goon KC & Alldredge J. Tolerance of olaparib in a patient with unresectable serous gynecologic cancer and end-stage renal disease. Cureus 2023; 15(3): e36505.

Masten M & Alston M. Treatment of recurrent cesarean scar pregnancy with oral mifepristone, systemic methotrexate, and ultrasound-guided suction dilation and curettage. Cureus 2023; 15(3): e36200.

Masten M & Alston M. Spontaneous bilateral ectopic pregnancy treated with combination of methotrexate, unilateral salpingectomy, and unilateral expulsion of pregnancy. Cureus 2022; 14(9): e29031.

Moore E, **Friedman J**, Christopher D. Vaginal corrosion due to insertion of a 9-volt battery. Obstet Gynecol 2023: online ahead of print.

Schulte V, Persenaire C, Moroney MR, Guntupalli SR. Utilizing preoperative arterial embolization to minimize blood loss at time of vulvar sarcoma resection: A case report. Gynecol Oncol Rep 2022; 44: 101089.

Siegel DR, Sheeder J, Kramer W, Roeca C. Are donor-conceived people willing to use donors themselves? Insights from individuals conceived via donor-assisted reproduction. Hum Reprod 2022; 37(9): 2087-94.

Siegel DR, Grau L, Sammel M, Nel-Themaat L, Santoro N, Polotsky AJ. Anti-mullerian hormone and follicle-stimulating hormone are poor independent predictors of live birth after assisted reproductive technology. Reprod Sci 2023; 30(4): 1316-23.

Wilde M, Moyer G, Huguelet PS. Use of the levonorgestrel intrauterine device in an adolescent with type IV vascular Ehlers-Danlos syndrome and heavy menstrual bleeding, a case report. J Pediatr Adolesc Gynecol 2023; 36(3): 331-333.