METHODS: Secondary analysis of a randomized trial of antenatal magnesium to prevent adverse neonatal outcomes. Subjects were included if they met criteria for chorioamnionitis: a clinical diagnosis of chorioamnionitis and maternal temperature (T) ≥37.8°C. The exposure group included women who met criteria for IAI, defined as a single maternal T≥39.0°C or maternal T 38.0-38.9°C plus one additional clinical risk factor (leukocytosis, purulent cervical drainage, or fetal tachycardia). The primary outcome was postpartum endometritis. The odds of postpartum endometritis were compared between women with IAI and women with clinical chorioamnionitis, after adjusting for potential confounders using multivariate logistic regression.

RESULTS: Of the original study population, 284/2444 (11.6%) subjects were diagnosed with chorioamnionitis and were included. Nearly all received antibiotics between randomization and delivery (279; 98.2%). 153 (53.9%) met criteria for IAI. 48 (16.9%) experienced postpartum endometritis. Women with IAI had higher parity (p=0.01), higher maximum maternal temperature (p<0.001), and were more likely to have received antibiotics (p=0.02). Postpartum endometritis rates were similar between subjects with chorioamnionitis and IAI (15.3% vs. 18.3%; p=0.50). After adjustment for potential confounders, parity and maximum maternal temperature remained significantly associated with postpartum endometritis. The odds of developing postpartum endometritis did not differ between subjects who met criteria for IAI and those who did not after adjusting for confounders (aOR 0.65; 95% CI 0.30-1.44).

CONCLUSION: Preterm parturients with clinical chorioamnionitis appear to have similar odds of developing postpartum endometritis as those meeting ACOG criteria for IAI, suggesting that this group remains at high risk for postpartum infectious complications.

LEARNING OBJECTIVES: The learner will describe the possible implications of the IAI diagnostic criteria on postpartum infectious morbidity.

4 Pregnancy latency associated with oral compared to intravenous antibiotics following preterm premature rupture of membranes

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OBJECTIVES: To assess pregnancy latency after preterm premature rupture of membranes (PPROM) following treatment with oral (PO) antibiotics alone compared to intravenous (IV) followed by PO antibiotics.

METHODS: This is a retrospective study comparing women with PPROM who were initiated on a 7 day PO-only regimen of azithromycin and amoxicillin (modified regimen) for a 12 month period starting in December 2017 to women who were initiated on a 2 day regimen of IV ampicillin and amoxicillin followed by 5 days of PO azithromycin and amoxicillin (standard regimen) in the prior 12 months. Women were included if they were diagnosed with PPROM <34 weeks and were started on latency antibiotics within 36 hours of rupture and excluded if they had a contraindication to expectant management, a cerclage, or fetal anomalies. The primary outcome was pregnancy latency from the first dose of antibiotics until delivery. In addition composite maternal and neonatal morbidity was assessed. Our sample size was fixed due to the period of time in which IV bags in which to mix antibiotics were unavailable due to national shortages caused by hurricane Maria. Using the mean and standard deviation of latency in our cohort there was 80% power to detect an effect size of 7 days or greater.

RESULTS: The 38 women who received the modified regimen and the 86 who received the standard regimen had similar baseline characteristics. The rate of GBS rectovaginal colonization was 26% in both groups. The majority of women were delivered if they reached 34 weeks gestation. There were no statistically significant differences in pregnancy latency or maternal and neonatal infectious morbidity.

CONCLUSION: This study suggests that adoption of a PO-only regimen for pregnancy latency following PPROM may be a reasonable alternative to a standard combined IV and PO regimen.

LEARNING OBJECTIVES: Learners will be able to demonstrate that there are no clear differences in pregnancy latency, maternal, or fetal outcomes following a PO-only regimen for pregnancy latency following PPROM compared to a standard combined IV and PO regimen.

5 HIV-adapted group prenatal care: assessing viral suppression and postpartum retention in care

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OBJECTIVES: To evaluate postpartum retention in HIV care and viral load suppression following HIV-adapted group prenatal care.

METHODS: Retrospective chart review was performed for women living with HIV who presented for prenatal care in the Harris Health System (Houston, TX) between July 2013 and December 2017. Stillbirths, abortions, and patients who transferred out of the system during their pregnancy were excluded. All women had the option to pursue group or individual prenatal care unless they presented >28 weeks or spoke a language other than English or Spanish, in which case they were assigned to individual care. Group care was based on the standard Centering curriculum with addition of key HIV topics. Demographic and outcome variables were compared using chi-square and t-tests. Analyses were adjusted for variables that were found to be significantly different between groups.

RESULTS: Of 190 total women living with HIV seeking prenatal care in this time period,137 met inclusion criteria. 71 women elected group prenatal care, while 66 continued in individual care. Women electing group care were more likely to be younger (at HIV diagnosis and entry to prenatal care), of lower parity, identify as Hispanic/Latina, be born in Central America, present for prenatal care earlier, and attend more prenatal visits (all p=<0.05). Initial analyses demonstrated increased attendance at postpartum HIV primary care visits and increased likelihood of undetectable viral load (defined as <20) at delivery among women who participated in group prenatal care. After controlling for variables that were significantly different between cohorts, postpartum attendance did not differ between groups but the odds of having a detectable viral load at delivery remained significantly lower in the Centering group (OR 0.34 (0.11-0.95), p=0.04).

CONCLUSION: This study demonstrated a greater likelihood of having an undetectable viral load at delivery for women who participated in the Centering program, although attendance at postpartum HIV visits did not differ. Having an undetectable viral load at delivery is key for decreasing maternal-child transmission, however continuing care after the pregnancy is vital both for risk to future pregnancies and a woman's lifelong health. Further research is needed to identify and address reasons for loss to follow up in the postpartum period within this population.

LEARNING OBJECTIVES: Compare HIV-adapted prenatal care administered via group model (Centering) versus individual care model Identify differences in the population of women choosing group (Centering) versus individual prenatal care Recognize improvement in the odds of having an undetectable viral load at delivery in the group (Centering) care cohort.

6 Intrapartum antibiotic therapy with cefazolin rather than clindamycin or metronidazole is associated with lower postpartum infectious morbidity among women with chorioamnionitis delivering by cesarean

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OBJECTIVES: To investigate whether intrapartum surgical prophylaxis with cefazolin versus clindamycin or metronidazole decreases the risk of postpartum infectious morbidity among women delivering by cesarean receiving a base regimen of ampicillin or penicillin with gentamycin for chorioamnionitis.

METHODS: A secondary analysis of women who delivered by cesarean with a presumptive diagnosis of chorioamnionitis (intrapartum fever >100.4°F and receipt of intrapartum antibiotics) in the Maternal-Fetal Medicine Units Network (MFMU) Cesarean Registry. We compared surgical prophylaxis with cefazolin versus clindamycin or metronidazole. All women received a base regimen of penicillin or ampicillin with gentamycin. The primary outcome was a composite of postpartum maternal infectious morbidity: endometritis, wound infection, abscess, necrotizing fasciitis, maternal sepsis, and septic pelvic thrombophlebitis. Multivariable logistic regression was used, adjusting for age, parity, race, insurance, body mass index at delivery, pregestational diabetes, American Society of Anesthesiologists (ASA) classification, trial of labor prior to cesarean, and postpartum antibiotics.

RESULTS: Among 1,513 women with presumptive chorioamnionitis who delivered by cesarean, 28.3% (n=429) received cefazolin versus 71.7% (n=1,084) clindamycin or metronidazole. Most women (80.1%) received postpartum antibiotics, which was less likely with cefazolin versus clindamycin or metronidazole (63.1% vs. 86.9%; OR: 0.25; 95% CI: 0.19 to 0.33). The frequency of postpartum infectious morbidity was 9.8% (148/1,513), which was lower with cefazolin versus clindamycin or metronidazole (22.9% vs. 77.0%, OR: 0.73; 95% CI: 0.49 to 1.09). In multivariable analysis, women treated with cefazolin versus clindamycin or metronidazole had a nearly 70% lower odds of postpartum infectious morbidity (AOR: 0.31, 95% CI: 0.19 to 0.50), which held when the outcome was restricted to endometritis (AOR: 0.36; 95% CI: 0.22 to 0.61).

CONCLUSION: In this large multi-center cohort of women delivering by cesarean with chorioamnionitis receiving penicillin or ampicillin with gentamycin, postpartum infectious complications were decreased when surgical prophylaxis with cefazolin versus clindamycin or metronidazole was given.

LEARNING OBJECTIVES: Learners will consider implications of standard antibiotic prophylaxis for cesarean as opposed to alterative regimens in the setting of cesarean delivery with chorioamnionitis.

7 The vaginal microbiota, high-risk human papillomavirus infection, and cervical intraepithelial neoplasia: results from a population-based study

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OBJECTIVES: While there is epidemiologic evidence of an association between bacterial vaginosis and human papillomavirus (HPV) infection, the potential relationship between the vaginal microbiota, high-risk HPV, and cervical intraepithelial neoplasia (CIN) has been under studied. Our objective was to characterize the vaginal microbiota in a stratified random sample of women from a population-based study in Appalachia, which has the highest annual rate of cervical cancer mortality in the U.S.

METHODS: We analyzed cervico-vaginal samples from 358 women in the Community Access, Resources and Education (CARE): Project 3 study across 16 clinics in Ohio. Using Illumina MiSeq sequencing of 16S rRNA gene amplicons, we characterized the vaginal microbiota among women with a) CIN, b) high-risk HPV only, and c) a random sample of healthy controls. Linear discriminant analysis (LEfSe) was used to identify taxa that were significantly differentially abundant between CIN and high risk-HPV status compared to controls. We clustered vaginal microbiota into community types using PAM clustering based on theta-yc distances and used multinomial logistic regression models to test for associations between health status and vaginal microbiota community type and quartiles of relative abundance, respectively.

RESULTS: 94.4% of women were non-Hispanic White, and the mean age was 31.4 years (SD=12.7). Three main vaginal community types were identified: L. crispatus-dominant (17%), L. iners-dominant (37%), and a diverse community type (43%). Women with CIN or high-risk HPV were more likely to have a diverse vaginal microbiota community characterized by higher G. vaginalis relative abundance, compared to controls whose communities were more likely to be Lactobacillus spp. dominant ($p<0.03$). Both L. iners and L. gasseri were found at significantly greater relative abundances in controls than in women with CIN or high-risk HPV ($p= 0.027$ and 0.0014, respectively)).

CONCLUSION: Compared to healthy controls, the vaginal microbiota of women with CIN or high-risk HPV in Appalachia were characterized by a diverse community with increased relative abundance of G. vaginalis and reduced relative abundance of Lactobacillus spp. Further study and validation of these differences for prognostic use is warranted given they can be self-collected and are noninvasive.

LEARNING OBJECTIVES: Identify potential noninvasive vaginal microbiota risk markers of high-risk HPV and cervical intraepithelial neoplasia (CIN).

8 Patterns of treatment and tests of reinfection for trichomoniasis in pregnancy at a large safety-net hospital

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OBJECTIVES: To describe patterns of testing for trichomoniasis during pregnancy including modes of testing and presence of symptoms. To describe treatment and follow-up tests of reinfection (TOR) for trichomoniasis diagnosed in pregnancy.

METHODS: A retrospective cohort study was conducted of women who delivered at a single public hospital between July 1, 2016 and June 30, 2018. Eligible women had at least one triage or prenatal