RESULTS: Among 964 women with incident asymptomatic BV by Nugent score (mean 8.2), the mean age was 33 years; 98% had clue cells on saline microscopy, 85% had a pH ≥ 4.5, 32% had a positive whiff test, and 24% had abnormal vaginal discharge identified clinically during pelvic examination. With an average 112 days of follow-up, 578 (60%), women had resolution of incident asymptomatic BV, with an average of 93 days (range 33-128) until resolution; 83 (9%) women developed symptoms, with an average 100 days (range 42-147) till symptoms; and 303 (31%) women had no change in BV status, with an average 153 days (range 64-247) of follow-up. Women with a baseline Nugent score of 9 or 10 (adjusted hazard ratio [aHR]=0.59; 95% CI 0.46, 0.75), pH ≥4.5 (aHR 0.66; 95% CI 0.51, 0.87), or positive Whiff test (aHR 0.87; 95% CI 0.70, 1.08) had lower hazards of resolving BV compared to women who had no change in status. Women reporting use of depot medroxyprogesterone acetate (aHR 1.32; 95%CI 1.03, 1.70) or condoms (aHR 1.42; 95% CI 1.08, 1.87) as their current contraception had a higher hazard of resolving BV compared to women with no change. Among women who resolved BV, 4.7% later developed symptoms with an average of 103 days from resolution to symptomatic BV.

CONCLUSION: Over a year of follow-up, the majority of women with incident asymptomatic BV did not develop symptoms in the absence of treatment. However, almost a third of women remained asymptomatic with elevated Nugent scores. Baseline clinical factors may be useful in identifying these women who may remain at high risk for sequelae associated with asymptomatic BV.

LEARNING OBJECTIVES: Learners will be able to describe the natural history of incident asymptomatic BV and the proportion of women who resolve BV without treatment.

24 The effect of estimated blood loss on postpartum infection risk

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OBJECTIVES: Current guidelines for obstetric antimicrobial prophylaxis recommend additional intra-operative antibiotics for excessive blood loss defined as >1.5L. This recommendation is based on studies performed on patients undergoing spinal surgeries. Given the different risk profile of infection for patients undergoing Cesarean delivery, we aimed to evaluate rates of postpartum infection based on estimated blood loss(EBL).

METHODS: Retrospective cohort study of all women at a single institution undergoing Cesarean delivery from January-June 2014 and January-June 2016. Women with EBL<1.5L were compared with EBL ≥1.5L. Women were excluded only for vaginal birth and outcomes were tracked until 42 days postpartum. The primary outcome was composite postpartum infection characterized by a wound infection or endometritis. Secondary outcomes included the wound hematoma, seroma, or infection, endometritis, readmission for wound complications, wound debridement, outpatient visit for antibiotics or wound complication. Backwards-stepwise regression was used to estimate adjusted odds of primary outcome.

RESULTS: 2202 women met inclusion criteria; 104 (4.7%) women had an EBL ≥1.5L and 2098 (95.2%) had EBL <1.5L. Women with EBL ≥ 1.5L were more likely to be older, receive a blood transfusion, and receive postpartum antibiotics. Women with EBL ≥1.5L were less likely to have had an abdominal or vaginal surgical prep with chlorhexadine. There were also trends towards women with a larger EBL to have a multiple gestation, repeat Cesarean, Cesarean after labor, and chorioamnionitis although these failed to reach statistical significance. An EBL ≥ 1.5L was associated with a decreased risk of postpartum infection (aOR 0.26 95% CI 0.08-0.82) although rates of wound infection (aOR 0.31 95%CI 0.09-1.1), readmission (p=0.72) or outpatient treatment for a wound infection (p=>0.99) were not different between groups.

CONCLUSION: In this cohort, estimated blood loss greater than 1.5 liters with Cesarean delivery was associated with decreased risk of postpartum infectious morbidity related to endometritis or wound infections. However, women with higher EBL were treated differently in the intrapartum/postpartum period including receipt of additional antibiotics, which may explain their decreased infectious morbidity

LEARNING OBJECTIVES: 1. Learners will recognize the paucity of data on re-doing of antibiotics in the obstetric population and determine need for further research to determine the estimated blood loss associated with higher infection risk.

25 Prevalence of congenital CMV infection in Colombia

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OBJECTIVES: The prevalence of congenital cytomegalovirus (CMV) infection ranges from 0.6% to 3.2% in studies conducted in Brazil, Chile, Panama, and Mexico, but data from other Latin American countries are lacking. This study assessed the prevalence of congenital CMV infection among infants born to women in a prospective cohort study in Colombia.

METHODS: During October 2017-September 2018, urine samples were collected from infants born to women enrolled in the Zika en Embarazadas y Niños en Colombia cohort study in cities from three regions in Colombia. The first infant urine samples collected after birth were tested. Congenital CMV infection was defined as a positive result by quantitative polymerase chain reaction within 21 days of birth using the CMV R-gene kit (Argene) for detection of CMV DNA, and confirmatory testing was conducted in a second laboratory.

RESULTS: Among 657 infants with a urine sample collected within 21 days of birth (median=15 [interquartile range, IQR: 13-17] days), 8 infants (1.2%; 95% confidence interval [CI]=0.6-2.4%) were CMV-positive. The prevalence of congenital CMV infection was 1.6% (95% CI=0.6-4.7%) in Valle, 1.6% (95% CI=0.7-3.8%) in Barranquilla, and there were no cases of congenital CMV infection in Bucaramanga. The median viral load was 2.7*105 copies/mL [IQR: 9.16*103 − 1.02*107). Median maternal age was 22.2 years (IQR: 19.6-28.7) among mothers of CMV-positive infants compared to 25.3 (IQR: 21.0-30.0) years among mothers of CMV-negative infants (p=0.33).

CONCLUSION: Congenital CMV infection prevalence in our cohort was within the range reported from other studies in Latin America. Clinical follow-up is ongoing for CMV-positive infants. Studies including cohorts of pregnant women and infants offer an opportunity to understand the burden of congenital CMV infection and associated disabilities.

LEARNING OBJECTIVES: Learners will be able to identify the prevalence of congenital CMV infection in a prospective cohort study in Colombia.

26 Association of maternal hygiene behaviors and cytomegalovirus (CMV) serostatus

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OBJECTIVES: To examine whether maternal hygiene behaviors or risk-perception are associated with maternal cytomegalovirus (CMV) serostatus.

METHODS: Secondary analysis of a randomized controlled trial of the effect of behavioral intervention on hygiene-based compliance. All participants provided serum samples and completed surveys assessing maternal hygiene behaviors, anxiety, and risk perception for CMV infection prior to trial enrollment. The primary outcome of this analysis was CMV seropositivity (CMV IgG+). Chi-square or Fisher's exact test was used for categorical variables and student's T-test or Wilcoxon rank sum for continuous variables. Multiple stepwise logistic regression assessed the association of maternal hygiene behavior and risk perception with IgG seropositivity controlling for potential confounders including type of obstetric practice maternal age, ethnicity, race, household type, income level, educational level, and insurance status.

RESULTS: 195 women were enrolled: 99 (50.8%) were seronegative and 96 (49.2%) seropositive. The Behavioral Compliance or Risk-Perception scores were not associated with CMV IgG+ (aOR 0.94, 95% CI 0.69-1.28 and aOR 1.04, 95% CI 0.91 -1.19). Women with an annual household income of < $50,000 were 2.4 times more likely to be CMV IgG+ (aOR 2.41, 95% CI 1.14 -5.07). Women who identified as Black or African American were approximately 7 times more likely to be CMV IgG+ (aOR 6.94, 95% 2.42-19.86).

CONCLUSION: Maternal hygiene behaviors and personal risk perception were not associated with CMV IgG seropositivity. African American race and lower household income were associated with an increased likelihood of maternal CMV seropositivity suggesting that exposure to CMV may be more related to socioeconomic status than to hygiene behaviors. Further research is needed to determine the reason behind these risk disparities.

LEARNING OBJECTIVES: Listeners should be able to identify factors that influence CMV seropositive status.

27 Association between maternal obesity and group B streptococcus (GBS) colonization in a national US cohort

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OBJECTIVES: The association between obesity and group B streptococcus (GBS) colonization remains to be fully defined, and has implications for antibiotic prophylaxis in an era of increasing obesity prevalence and severity. We estimated the association between maternal pre-pregnancy body mass index (BMI) and GBS colonization.

METHODS: A secondary analysis of women who underwent a trial of labor from the Consortium on Safe Labor study. The exposure was maternal pre-pregnancy BMI, categorized as normal weight or below (<25 kg/m2), overweight (25 to <30 kg/m2), class I obesity (30 to <35 kg/m2), class II obesity (35 to <40 kg/m2), and class III obesity (≥40 kg/m2). The outcome was GBS colonization in pregnancy. Logistic regression with generalized estimating equations modeled the association while accounting for within-woman correlations. Models adjusted for maternal age, parity, race, pre-gestational diabetes, insurance status, study site/region, and year of delivery.

RESULTS: Among 228,438 pregnant women, 84.1% underwent a trial of labor, of whom 128,305 (66.8%) had available BMI data. With regards to BMI, 60.5% of women were classified as normal weight, 22.4% overweight, 10.0% class I obesity, 4.3% class II obesity, and 2.9% class III obesity. The overall prevalence of GBS colonization was 19.4% (24,992/128,305), which increased with rising maternal BMI. In multivariable analysis, increasing obesity severity as defined by BMI class was associated with higher odds of colonization with GBS, namely overweight (adjusted odds ratio, AOR: 1.09, 95% confidence interval, CI: 1.05 - 1.13), class I obesity (AOR: 1.20, 95% CI: 1.15 - 1.26), class II obesity (AOR: 1.42, 95% CI: 1.33 - 1.51), and class III obesity (AOR: 1.50; 95% CI: 1.38 - 1.62) compared to normal weight women.

CONCLUSION: This study, performed within a national US sample, identified a higher likelihood of maternal GBS colonization with increasing maternal BMI. This finding has implications for antibiotic prophylaxis to prevent neonatal sepsis in an era of rising obesity in pregnancy.

LEARNING OBJECTIVES: Upon completion of this session, the learner will describe trends in GBS colonization by BMI category.

28 Is group B streptococcus colonization associated with chorioamnionitis in an era of intrapartum antibiotic prophylaxis?

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OBJECTIVES: To assess whether colonization with group B streptococcus (GBS) is associated with chorioamnionitis in an era of routine intrapartum antibiotic prophylaxis.

METHODS: A secondary analysis of women who underwent a trial of labor from the U.S. Consortium on Safe Labor study. The primary exposure was colonization with GBS in pregnancy. The primary outcome was a diagnosis of chorioamnionitis in the medical record or billing code. Secondary outcomes included other infectious morbidities (antepartum urinary tract infection, and postpartum diagnoses of endometritis and incisional wound infection after cesarean). Logistic regression with generalized estimating equations modeled the associations while accounting for within-woman correlations. Models adjusted for maternal age, parity, race, pre-pregnancy body mass index, pre-gestational diabetes, insurance status, study site/region, and year of delivery.

RESULTS: Among 228,438 pregnant women, 192,074 (84.1%) underwent a trial of labor. A total of 6,470/192,074 (3.4%) of women had a diagnosis of chorioamnionitis, and 35,934 (18.7%) were colonized with GBS. The frequency of chorioamnionitis was lower among women colonized with GBS compared to those without (3.1% vs. 3.4%, p<0.001). In multivariable analysis, GBS colonization was associated with lower odds of chorioamnionitis (adjusted odds ratio, AOR: 0.90; 95% CI: 0.84 − 0.96). For secondary outcomes, the odds of antepartum urinary tract infection was higher with GBS colonization (AOR: 1.44; 95% CI: 1.36 − 1.53). GBS