34 Evaluating the guideline for group B streptococcus screening of pregnant women with hospital admissions prior to term

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OBJECTIVES: The objective of this study was to evaluate the recommended practice of screening patients admitted preterm for group B streptococcal (GBS) colonization by comparing culture results between those who received antibiotics before culture and those who did not. Since many patients (e.g. those transferred from other facilities) receive antibiotics before screening culture specimens are obtained, false negative results might occur.

METHODS: We conducted a retrospective cohort study of all pregnant patients admitted to our center at 23 0/7 to 36 6/7 weeks gestational age from January 1, 2014 to March 31, 2017. Patients were included if a GBS screening culture was obtained within 24 hours of admission and it could be ascertained whether or not antibiotics for GBS prophylaxis had been administered before obtaining the screening culture. A power calculation determined the need for 650 eligible patients to detect a 40% decrease in GBS positivity from 25% to 15% in the antibiotic group. Chi-square analysis was used for the primary outcome of antibiotics prior to culture vs GBS culture result. Multivariable regression models were used to calculate risk ratios and 95% confidence intervals adjusted for demographic and clinical characteristics. Kaplan-Meier method was used to estimate GBS culture result by time to culture.

RESULTS: Of the 1879 maternal records reviewed, 751 met eligibility requirements, 151 (20%) of whom received antibiotics prior to culture and 600 (80%) of whom did not. Patients receiving pre-culture antibiotics had a lower proportion of positive GBS cultures (20%) compared to those who did not receive preculture antibiotics (25%), but this difference did not reach statistical significance (p=0.24). This unadjusted risk ratio (RR) is 0.82 (95% confidence interval (CI) 0.58-1.15). This RR still was not statistically significant after adjusting for covariates (age, race/ethnicity, parity, BMI, chronic hypertension, diabetes, primary indication for preterm admission) RR 0.91 (95% CI 0.59-1.41). In those receiving pre-culture antibiotics, the median (25th, 75th) time from antibiotics to culture was 4.6 (1.8, 6.6) hours for those with positive and 4.5 (2.6, 6.6) hours for those with negative culture results (p=0.94).

CONCLUSION: In this cohort of preterm pregnant women admitted to the hospital, administration of antibiotics before GBS screening culture did not significantly reduce the likelihood of culture positivity.

LEARNING OBJECTIVES: Learners will be able to evaluate the efficacy of GBS screening practices in women admitted prior to term.

35 Disparities identified in knowledge, acceptance and uptake of influenza vaccine during pregnancy among a diverse population of women in an academic medical center in South Florida

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OBJECTIVES: This study explored knowledge, acceptance and uptake of influenza vaccine among pregnant woman, and examined factors underlying the decision to vaccinate, barriers to vaccination, and patient-provider communication regarding influenza vaccinations during prenatal care.

METHODS: Method: Women who delivered during February and April 2019 were asked to complete a questionnaire regarding vaccination in pregnancy. Women able to read and willing to complete the questionnaire were eligible to participate. Following informed consent, participants provided demographic information, general knowledge about influenza and vaccination, and personal vaccination history. Vaccination history was confirmed by medical record review. Statistical analysis was performed using chi-squared and fisher's tests. A p-value of less than 0.05 was considered statistically significant.

RESULTS: Among women who completed the survey (n=168), 32% were Black (African American and Caribbean), 55% were Hispanic, and a third (39%) had a college degree. Although most women (90%), reported being offered the flu vaccine, upon review of medical records, only 58% were confirmed to have been vaccinated. The majority of those vaccinated during pregnancy ranged between ages 25-34. Black women had lower rates of vaccination. The reverse was true for Hispanics. Participants who self-reported being vaccinated had higher knowledge scores than those not vaccinated (p < 0.001). Eighteen incorrectly identified that they had received the vaccine; 3 reported never receiving the vaccine, despite the medical record indicating the contrary. Age, insurance status, education, or employment were not associated with vaccination status. A variety of barriers, such as being opposed to vaccination (10%), concerns about safety (24%) and needing more information (8%) were identified. When stratified by race/ethnicity, Black women were significantly (p=0.018) more likely to indicate fear and concerns about vaccination, compared to Hispanics. When assessing knowledge scores, Blacks were less likely than Hispanics to agree that pregnant women should receive a flu vaccine (74% versus 97%; p <0.001).

CONCLUSION: This study found that 42% of respondents had not been vaccinated during pregnancy, despite the majority reporting being offered vaccination. Low uptake was associated with low knowledge scores. Culturally targeted educational strategies to improve vaccination knowledge and increase rates among diverse communities of pregnant women is warranted.

LEARNING OBJECTIVES: Learners will be able to describe potential barriers to uptake of influenza vaccination among diverse communities of pregnant women.

36 In vitro activity of ibrexafungerp (formerly SCY-078) against Candida spp. (including fluconazole-resistant isolates) in development for the treatment of vulvovaginal candidiasis

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OBJECTIVES: Vulvovaginal candidiasis (VVC) is a common fungal infection caused by Candida spp., with only one oral treatment, fluconazole, currently approved in the U.S. Another oral option is desirable, particularly with azole resistance on the rise among some Candida spp. Ibrexafungerp (IBX, formerly SCY-078) is a first-in-class, broad-spectrum, intravenous and oral, triterpenoid antifungal, a novel class of glucan synthase inhibitors, currently in phase 3 development for the treatment of VVC. The purpose of this study was to evaluate the activity of IBX against Candida spp., including fluconazole-resistant isolates.

METHODS: In vitro MIC data for IBX against multiple Candida spp. were compiled from 7 independent studies. The combined studies

included 242 isolates with fluconazole resistance (FLU-R) and 532 wild-type (WT) isolates of C. albicans, C. glabrata, C. tropicalis and C. parapsilosis. In vitro susceptibility was determined by broth mi-cro-dilution using CLSI methods. Isolates with IBX MIC values >2-fold dilutions as compared to WT MIC50 values were considered resistant. FLU-R was defined for Candida spp. per CLSI M27-S4.

RESULTS: MIC50 values for IBX against the WT isolates ranged from 0.008 to 0.5 ug/mL. Similar results were obtained against FLU-R strains, for which IBX MIC50 values ranged from 0.06 to 0.5 ug/mL. Overall, IBX was active (MIC within 2 dilutions of WT) against 240/242 (99%) of the FLU-R isolates tested in these studies.

CONCLUSION: IBX exhibited in vitro activity against FLU-R Candida spp. These results suggest that IBX is a highly-promising, orally bioavailable antifungal agent for the treatment of patients with FLU-R VVC.

LEARNING OBJECTIVES: The learner will understand data on ibrex-afungerp, in development for acute and recurrent vulvovaginal candidiasis, and its activity against both azole-susceptible and azole-resistant Candida spp. and how this will affect prescribing for by clinicians for patients with vulvovaginal candidiasis.

37 Withdrawn

38 An epidemiological portrait of sexually transmitted and blood-borne infections (STBBIs) in pregnant women followed at Sainte-Justine hospital: identification of risk factors and associated perinatal vulnerabilities

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OBJECTIVES: STBBIs have been on the rise in Quebec in recent years, with the large majority of cases being reported in women of child-bearing age. The reduction of STBBIs during pregnancy is a public health priority as their presence can have adverse effects on the pregnant woman's health, the course of the pregnancy, and the child' health. The objectives of this research project were to analyze the risk factors for the presence of STBBIs in pregnancy and to determine whether pregnant women with STBBIs are more likely to experience associated perinatal vulnerabilities.

METHODS: This retrospective cohort study was conducted by analyzing electronic clinical records, hospitalization data, and labo-ratory results of N = 4,032 pregnant women followed at Sainte-Justine hospital in Montreal, Canada between March 1, 2017 and January 31, 2019. In particular, gonorrhea, chlamydia, syphilis, and hepatitis B and C were studied. P-values were determined using the chi-squared test or Fisher's exact test where appropriate.

RESULTS: There were 68 positive STBBI cases identified in this cohort of 4,032 pregnant women (1.7%). The positive cases were distributed as follows: n = 35 chlamydia, n = 3 gonorrhea, n = 5 syphilis, n = 22 hepatitis B, and n = 3 hepatitis C. Among pregnant women with an STBBI, 48.5% were aged 20-29 and 13.2% were adolescents. Further-more, 64.3% of pregnant women with an STBBI had a pre-pregnancy body mass index (BMI) classifying them as overweight or obese. Risk factors for the presence of STBBIs in pregnancy were age (p < 0.001), ethno-cultural group (p = 0.0017), personal history of STBBIs

(p = 0.0014), and pre-pregnancy BMI (p = 0.043). In addition, results for the associated perinatal vulnerabilities showed that smoking during pregnancy was borderline statistically significant with a p-value of 0.053.

CONCLUSION: Pregnant women with STBBIs are more likely to be young, of non-Caucasian descent, to have a personal history of STBBIs, and to have a high pre-pregnancy BMI. The results of this study will allow us to propose targeted interventions to reduce STBBIs in a group of women with common risk factors as part of a holistic approach to perinatal care. The ultimate goal is to improve infant and maternal health by reducing perinatal health inequalities in the context of STBBIs.

LEARNING OBJECTIVES: Learners will be able to identify risk factors and perinatal vulnerabilities that are common to pregnant women at risk of having an STBBI in pregnancy.

39 Predictors of antenatal tetanus, diphtheria, acellular pertussis and influenza vaccination in a medically underserved population

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OBJECTIVES: To evaluate predictors of vaccination for women that received tetanus, diphtheria, and acellular pertussis vaccination (Tdap), influenza vaccination, and Tdap and influenza vaccinations.

METHODS: In a retrospective cohort study of all full-term ($\geq$37 weeks gestation) deliveries between July 1, 2016 and June 30, 2018 at a single, safety net institution, we used multinomial logistic regression models to compare predictors of vaccination among women who received Tdap only, influenza only, and both Tdap and influenza vaccines

RESULTS: Among 3,133 full-term deliveries, women were primarily non-Hispanic black (67.5%), between the ages of 21-34 (65.3%), and multiparous (76.0 %). The rates of only influenza and Tdap vaccination were 9.2% and 23.6% respectively; 41.3% of women received both vaccines, and 26.0% of women did not receive either vaccine. In the adjusted model, Hispanic ethnicity and non-Spanish language interpreter use were positively associated with receipt of all types of vaccination. Inadequate and unknown prenatal care ade-quacy were negative predictors of all types of vaccination. HIV-positive status was negatively associated with influenza vaccination and Tdap and influenza vaccination.

CONCLUSION: Compared to the national rate of both Tdap and influenza vaccination (32.8%), a higher proportion of women received both vaccines in our study population. Vaccine uptake may be affected by race/ethnicity, use of interpreter services, HIV status, and prenatal care adequacy. The lower rate of influenza vaccination, compared to Tdap vaccination, suggests that other factors, such as vaccine hesitancy and mistrust, may be differentially impacting influenza vaccination uptake in our predominantly minority popu-lation. Future provider and public health approaches to vaccine promotion should incorporate culturally appropriate strategies that address vaccine-related beliefs and misconceptions.

LEARNING OBJECTIVES: Learners will be able to identify predictors of antenatal Tdap and influenza vaccination. Learners will also be able to evaluate similarities between predictors of antenatal Tdap and Influenza vaccine in a medically underserved population.