



Total number of adolescents (n=98)  
 Number of adolescents with seroprotection (n, %)  
 Geometric mean titer\* (IU/ml, 95% CI)  
 NOTE: \*Calculated among only adolescents with JE seroprotection (PRNT titer of  $\geq 10$ ).

**Figure 1.** Proportion of perinatally HIV-infected Thai adolescents with seroprotection against Japanese encephalitis virus and geometric mean titer of neutralizing antibody by the time since the last dose of Japanese encephalitis vaccine. Scale on the left represented the proportion of adolescents with different seroprotection levels against Japanese encephalitis (JE) virus. Scale on the right represented the geometric mean titer (GMT) of neutralizing antibody to JE virus with the means indicated as yellow dots (yellow vertical lines denote 95% CI). Plaque reduction neutralizing test (PRNT) antibody titers were 10-100 IU/ml (orange) and >100 IU/ml (blue).

**Table 1.** Associated factors of seroprotection against JE virus among perinatally HIV-infected Thai adolescents stable of combination antiretroviral treatment.

Parameters*	Univariable analysis		Multivariable analysis	
	Crude odds ratio	95% confidence interval	Adjusted odds ratio	95% confidence interval
<b>Demographic parameters</b>				
Age, year	0.88	0.73-0.99	0.86	0.74-0.99
Female	1.80	0.78-5.33	-	-
<b>Body mass index category</b>				
Underweight	Ref	Ref	Ref	Ref
Normal weight	0.54	0.21-1.37	0.47	0.16-1.33
Overweight	0.15	0.02-1.33	0.12	0.01-1.20
<b>HIV-related parameters</b>				
CD4 percentage prior to cART, %	1.07	0.96-1.18	-	-
CD4 percentage prior to cART category				
<5%	Ref	Ref	Ref	Ref
$\geq 5\%$	1.83	0.76-4.45	1.52	0.58-3.58
<b>Current cART regimen</b>				
NNRTI-based	Ref	Ref	Ref	Ref
PI-based	0.92	0.34-2.53	-	-
INSTI-based	2.50	0.15-41.94	-	-
Current CD4 count, cell/mm <sup>3</sup>	1.002	1.001-1.003	1.002	1.001-1.003
Current CD4 count category				
<350 cell/mm <sup>3</sup>	Ref	Ref	Ref	Ref
$\geq 350$ cell/mm <sup>3</sup>	0.56	0.15-2.17	-	-
<b>JE vaccine-related parameters</b>				
Number of MBDV				
3 doses	Ref	Ref	Ref	Ref
4 doses	1.71	0.27-10.88	-	-

Abbreviations: cART, combination antiretroviral treatment; INSTI, integrase inhibitor; JE, Japanese encephalitis; MBDV, mouse brain-derived inactivated JE vaccine; NNRTI, non-nucleoside reverse transcriptase inhibitor; PI, protease inhibitor.  
 \*Logistic regression analysis was performed to identify associated factors with seroprotection against Japanese encephalitis virus. Parameters demonstrating  $P < 0.20$  in the univariable logistic regression model were included in the multivariable analysis.

**Disclosures.** All authors: No reported disclosures.

## 2525. Understanding PrEP in Female Adolescents: A Parent/Adolescent Dyad Perspective

Meera Shah, MD, MPH<sup>1</sup>; Ashley Murray, MPH<sup>2</sup>; Scott Gillespie, MS, MSPH<sup>3</sup>; Andres Camacho-Gonzalez, MD, MSc<sup>4</sup>; <sup>1</sup>Emory University School of Medicine, Atlanta, Georgia; <sup>2</sup>Centers for Disease Control and Prevention, Atlanta, Georgia; <sup>3</sup>School of Medicine, Department of Pediatrics, Emory University, Atlanta, Georgia; <sup>4</sup>Ponce Family and Youth Clinic, Grady Infectious Diseases Program, Grady Health Systems, Atlanta, Georgia

**Session:** 265. HIV: Pediatric

**Saturday, October 5, 2019: 12:15 PM**

**Background.** Adolescents aged 13–24 years account for 23% of HIV diagnoses in the Atlanta Metropolitan Area, indicating the need for new prevention strategies. Pre-Exposure Prophylaxis (PrEP), recently approved for adolescent use, is effective in HIV prevention and is often marketed to young men who have sex with men (MSM); however, problems with access, scalability and waning adherence have limited its use in this population and more broadly. A 2016 CDC HIV surveillance report showed 19.2% of new HIV diagnoses were attributed to heterosexual transmission in women aged 13–24, relative to 0% in their heterosexual male counterparts, and 5.4% in same-aged MSM. This study assesses parent and female adolescent knowledge on HIV risk and PrEP perception to inform potential implementation strategies.

**Methods.** PrEP acceptability and barrier surveys were administered to 102 adolescent-parent dyads attending an adolescent clinic and emergency room in Atlanta, Georgia. Eight female adolescent-parent pairs were randomly selected to participate in in-depth phone interviews. Responses were analyzed using computer-assisted thematic analyses.

**Results.** Of the 8 female adolescent participants (mean age = 18.9 years), all were African American, and 1 was sexually active. Of the 8 parent participants (mean

age = 44.1 years), all were female and African American. None of the participants had ever used PrEP. Analysis indicated that both parents and adolescent females had poor HIV risk assessment and knowledge, as well as barriers to PrEP usage including concerns about side effects, cost, and desire for alternative PrEP delivery methods and/or schedules. Finally, adolescent females expressed reliance on self-efficacy to be able to discuss HIV protection methods with their partner.

**Conclusion.** Female adolescents use unreliable methods to ensure HIV prevention, and with poor HIV knowledge, are at risk of transmission. Thus, PrEP may be a viable option for adolescent females at high risk for infection. PrEP implementation strategies in adolescents needs to consider HIV risk assessment, PrEP education, potential options for alternative dosing and delivery, and continued implementation work, focused beyond just the young MSM community.

**Disclosures.** All authors: No reported disclosures.

## 2526. Side Effects of Antiretroviral Therapy in Children with HIV in a Referral Center in Mexico

Luis Xochihua Diaz, Medical Doctor<sup>1</sup>; Javier Ordoñez Ortega, MD<sup>2</sup>; Karen Alejandra Linares Lopez, MD<sup>2</sup>; Itzel Villanueva Garcia, MD<sup>2</sup>; Jose Luis Copado Gutierrez, MD<sup>2</sup>; <sup>1</sup>National Pediatric Institute, Mexico City, Distrito Federal, Mexico; <sup>2</sup>Instituto Nacional de Pediatría, Mexico City, Distrito Federal, Mexico

**Session:** 265. HIV: Pediatric

**Saturday, October 5, 2019: 12:15 PM**

**Background.** Human Immunodeficiency Virus infection (HIV) is still a challenge in many parts of the world, mainly in children. In Mexico the infection has been decreasing, however we still have cases, in 2018 we had 40 perinatal new cases reported. The antiretroviral therapy has shown to be effective to control the disease but it is not free of adverse effects, the children with vertical transmission are exposed to many years of the antiretroviral therapy.

**Methods.** Retrospective, observational descriptive study at Instituto Nacional de Pediatría during 2004–2019. We included every children under 18 years old who received treatment for HIV and had a complete medical record.

**Results.** We found 61 patients under 18 years that fulfill the data for the analysis. 37 (60%) were male, the mean age at diagnosis of HIV infection was 47 months, the antiretroviral therapy that received 57 patients (93.4%) of the study was zidovudine, lamivudine and lopinavir/ritonavir, only 4 received another therapy: 3 of them received abacavir, lamivudine, and lopinavir/ritonavir and the missing one received abacavir, lamivudine and raltegravir. 43% of the children of our study showed adverse effects after the antiretroviral therapy, the mean time of adverse effects presentation was 37 months after the beginning of the treatment. The most common effect was hypertriglyceridemia with 13 cases, in second place we found hypercholesterolemia in 7 cases, and both in 5 cases, other frequent effects were hepatotoxicity in 5 cases, diarrhea in 4 cases, anemia in 3 cases, vomit in 3 cases, abdominal pain and night terrors in 2 cases each one. It was necessary the change of the therapy because of adverse effects in 6 cases (9.8%).

**Conclusion.** Antiretroviral therapy is effective although it has many side effects. We observe that adverse effects are frequent, almost the half, in pediatric population, it depends on the antiretroviral selection, for children we had only a few options because of the little doses they need or the inability to swallow tablets. It's important to monitor and control all the adverse effects because they increase morbidity and mortality, especially dyslipidemia, that has been associated with cardiovascular risk and it was the most common effect found in our study.

**Disclosures.** All authors: No reported disclosures.

## 2527. Improving Care for Adolescents Living with HIV: Evaluating the Impact of Case-Based Education

Simi Thomas. Hurst, PhD; Don Blatherwick, MBA; Medscape Education, Oxford, New Jersey

**Session:** 265. HIV: Pediatric

**Saturday, October 5, 2019: 12:15 PM**

**Background.** The CDC estimates that 26% of the approximately 50,000 people newly diagnosed with HIV in 2010 were youth 13 to 24 years of age. Older children and adolescents now comprise the largest population cared for at pediatric HIV clinics.

**Methods.** To improve HIV/ID specialists' ability to develop a comprehensive care strategy for adolescents living with HIV, a CME/ABIM MOC/CE certified, case-based, educational program was developed. A series of multiple-choice questions evaluated the application of evidence-based recommendations. A "test then teach" approach elicited cognitive dissonance, with evidence-based feedback provided following each learner response. Educational effectiveness was assessed with a repeated-pairs pre-/post-assessment study design; each individual served as his/her own control. A chi-square test assessed changes pre- to post-assessment.  $P$  values < 0.05 are statistically significant. Effect sizes were evaluated using Cramer's  $V$  (< 0.05 modest; 0.06–0.15 noticeable effect; 0.16–0.26 considerable effect; > 0.26 extensive effect). The activity launched on a website dedicated to continuous professional development on November 27, 2018. Data for this initial analysis were collected through February 27, 2019.

**Results.** To date, 6,755 HCPs (1,714 physicians; 2,795 nurses; 1,076 pharmacists) have participated in the activity. Data from the subset of HIV/ID specialists ( $n = 87$ ) who answered all pre-/post-assessment questions during the initial study period were analyzed. Following activity participation, significant improvements were