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Background. In the context of medication safety, women with HIV who are of childbearing potential represent a particular challenge given the prevalence of unplanned pregnancies. Despite this, significant gaps in the literature exist characterizing prescription drug use in this cohort. Our study describes medication use and identifies medications that are contraindicated during pregnancy in a cohort of women with HIV who are of childbearing age.

Methods. Women with HIV aged 18–45 years who presented to an academic medical center between January 2016 and December 2017 were included for analysis. Patients were excluded if they were prescribed any form of contraception, received permanent sterilization, or were post-menopausal. The number of individual medications prescribed in the electronic medical record during the study period were documented. Chronic medications, defined as those prescribed for longer than 3 months, were analyzed. Patients were identified as experiencing polypharmacy if prescribed 5 or more medications at one time. In addition, contraindicated medications were reviewed and documented.

Results. A total of 213 patients met inclusion criteria for review. Of these, 169 (79%) and 66 (31%) patients experienced polypharmacy when including and excluding antiretrovirals, respectively. When antiretrovirals were included the mean number of medications prescribed was 7.48 (SD = 3.87) and 3.92 (SD = 3.75) when excluded. Of the 213 patients included, 64 (30%) were prescribed medications contraindicated during pregnancy. The majority of contraindicated medications were angiotensin converting enzyme inhibitors, angiotensin receptor blockers, statins, and hydroxyzine. In this cohort of women of child bearing potential (WOCBP) only 60 patients (28%) had been prescribed prenatal vitamins.

Conclusion. In this cohort of WOCBP with HIV, polypharmacy was observed in the majority of women. In addition, a third of these women were prescribed medications that are contraindicated during pregnancy. Given the potential impact of contraindicated medications on the developing fetus, our data supports the importance of preconception counseling on this issue as well as understanding the potential safety implications for mother and the fetus.

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

2523. Optimizing Disclosure of HIV Status to a Diverse Population of HIV-Positive Pediatric Patients at an Urban HIV Clinic in the Southeastern United States

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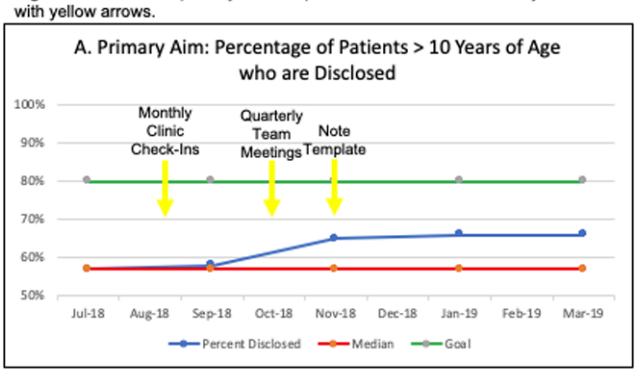
Background. Developmentally-appropriate disclosure of human immunodeficiency virus (HIV) status to children living with HIV (CLWH) is essential to achieve optimal health outcomes, but stigma and fear result in delaying disclosure into adolescence. The American Academy of Pediatrics recommends disclosure of HIV status to school-age children. The objective of this quality improvement (QI) project was to increase the proportion of CLWH > 10 years of age who are disclosed about their HIV status from 57% to 80% by 18 months.

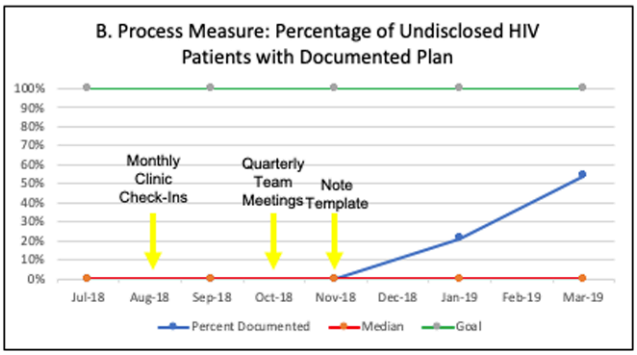
Methods. The Institute for Healthcare Improvement's Model for Improvement was utilized for this QI project. This model accelerates quality improvement by implementing Plan-Do-Study-Act (PDSA) cycles to determine whether changes lead to improvement. The target population included CLWH followed at an urban pediatric HIV clinic. The primary outcome measure was the proportion of children > 10 years of age who are disclosed about their HIV status. PDSA cycles included monthly clinic check-ins to discuss new disclosures, quarterly team meetings to discuss implementation of new changes to improve disclosure and modifying a note template to prompt providers to document disclosure status and plan for undisclosed patients. Our process measure was the proportion of undisclosed children who have a documented disclosure status/plan. Annotated run charts were used to track the data.

Results. Prior to our first PDSA cycle, 57% of CLWH > 10 years of age were disclosed to about their HIV status, and none of the undisclosed children had a disclosure status/plan documented in their medical record. The proportion of CLWH disclosed to about their HIV status increased to 66% since meeting with the team regularly to discuss disclosure status (figure). Four months after introduction of the modified note template, the proportion of CLWH with documentation of their disclosure status and plan increased to 54%.

Conclusion. Team awareness of the importance of disclosure and a modified clinic note template were associated with increases in the proportion of CLWH with age-appropriate HIV disclosure and documentation of disclosure status. Future interventions will include adapting methods of step-wise disclosure which have been proven effective in other settings.

Figure: Run charts of primary aim and process measure with PDSA cycles noted with yellow arrows.





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

2524. Prevalence and Associated Factors of Seroprotection Against Japanese Encephalitis Virus Among HIV-Infected Thai Adolescents Stable on Combination Antiretroviral Treatment

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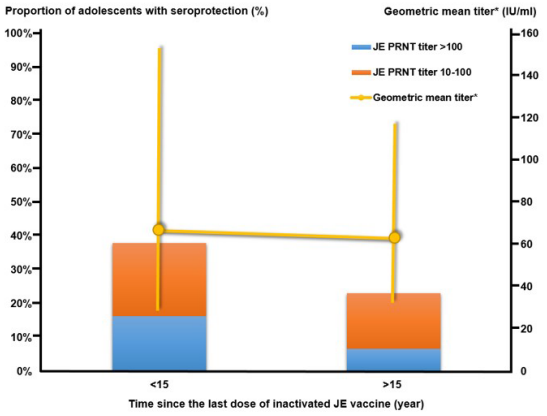
Background. To determine the prevalence and associated factors of seroprotection against Japanese encephalitis (JE) virus among HIV-infected adolescents stable on combination antiretroviral treatment (cART).

Methods. A multicenter seroprevalence study was conducted in Thailand. Perinatally HIV-infected adolescents who aged 11–25 years, had previous evidence of severely immune suppression (CD4 < 15% or < 200 cells/mm^3), were currently stable on cART (CD4 > 350 cells/mm^3 for > 6 months or CD4 > 200 cells/mm^3 with viral suppression [VS; plasma HIV RNA < 50 copies/mL] for > 12 months), and had completed a 3- or 4-dose series of mouse brain-derived inactivated JE vaccine (MBDV) during childhood were enrolled. Adolescents who had clinically or serologically confirmed recent JE virus infections, or received immunosuppressive agents or blood components within 6 months were excluded. Plaque reduction neutralization (PRNT50) assay was conducted to assess neutralizing antibodies to JE virus, and titers of ≥ 10 were considered seroprotective. Logistic regression analysis was performed to identify associated factors of JE seroprotection.

Results. Of 98 eligible adolescents, 54% were female, a median age was 19 years, and 11% were overweight. Ninety-five percent and 5% of adolescents received 3 and 4 doses of MBDV during childhood, respectively. A median duration since the last dose of MBDV was 16 years. At enrollment, 71% were on NNRTI-based cART regimens, a median cART duration was 13 years. A median current CD4 was 29%, and 89% had VS. Seroprotection against JE virus was identified in 28 (29%) adolescents; of whom, the geometric mean titer (GMT) of neutralizing antibody was 64 (95% CI: 39–106). Proportion of adolescents with JE seroprotection and GMT of neutralizing antibodies to JE virus slightly decreased over time after the last immunization (Figure 1). In a multivariable logistic regression analysis, seroprotection against JE virus was associated with younger age and greater current CD4 count (Table 1).

Conclusion. The majority of our perinatally HIV-infected adolescents did not maintain seroprotection against JE virus although having completed a series of MBDV during childhood. JE revaccination is an important tool for disease prevention in these adolescents who live in JE endemic areas.



Total number of adolescents (*n*=98)	37	61
Number of adolescents with seroprotection (n, %)	14 (37.8%)	14 (23.0%)
Geometric mean titer* (IU/ml, 95% CI)	66.30 (28.54-154.02)	62.71 (33.10-118.82)

NOTE: **Calculated among only adolescents with JE seroprotection (PRNT titer of ≥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
Demographic parameters				
Age, year	0.88	0.78-0.99	**0.86**	**0.78-0.99**
Female	1.80	0.78-5.33	-	-
Body mass index category				
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
HIV-related parameters				
CD4 percentage prior to cART, %	1.07	0.96-1.18	-	-
CD4 percentage prior to cART category				
<5%	Ref	Ref	Ref	Ref
≥5%	1.83	0.76-4.45	1.52	0.58-3.58
Current cART regimen				
NNRTI-based	Ref	Ref		
PI-based	0.92	0.34-2.53	-	-
INSTI-based	2.50	0.15-41.94	-	-
Current CD4 count, cell/mm^3	1.002	1.001-1.003	**1.002**	**1.001-1.003**
Current CD4 count category				
<350 cells/mm^3	Ref	Ref		
≥350 cells/mm^3	0.56	0.15-2.17	-	-
JE vaccine-related parameters				
Number of MBDV				
3 doses	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.

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

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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

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Background. Human Inmunodeficiency 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

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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