

study evaluates psychosocial factors, and HIV risk among transgender women with and without HIV infection living in Miami, the city with the highest incidence of HIV in the US.

Methods. Adults who identified themselves as TG living in Miami were recruited from the community and local clinics. Self-reported HIV status, sociodemographic, behavioral data (HIV risk behaviors, sexual partners, illicit substance and alcohol use), and psychosocial factors (depression, violence or abuse events, and HIV stigma) were collected with questionnaires into RedCap.

Results. A total of 22 participants completed assessments. Ten (45.5%) indicated being HIV uninfected (HIV-) and 12 (54.5%) had been diagnosed with HIV (HIV+). A total of 15 (68%) participants reported use of feminizing hormones and 11 (50%) had undergone feminizing surgeries. Median age was 55 (20, 69); 15 (69%) were white and 5 (23%) Black; 15 (69%) were of Hispanic ethnicity; Level of education 11 (12; 1.8) 12(55%) had completed at least high school; 2 (9%) were employed. 16 (73%) reported being sexually active in the previous month; median number of partners in the last month was 1.5 (1; 2.13); only 13 (60%) reported consistent condom use in the last sexual encounter; 14 (64%) engaged in receptive anal sex; 9 (41%) reported ever engaging in sex for money. Violence or abuse events were common, and participants had experienced an average of 3.9 lifetime events (Median = 3; SD = 3.45). Depression measured by the BSI-18 scale revealed low depression scores (Mean = 1.77; SD = 0.82). HIV infected participants were more likely to be black (p=0.05) and unemployed. We did not find significant differences by HIV status in other variables, including depression and violence or abuse. Among HIV+ participants, HIV stigma measured by the 'Stigma Scale' was low (Mean = 1.71; SD = 0.41).

Conclusion. We identified high rates of events of violence or abuse, that did not differ by HIV status. HIV infection was more common among black TG women. Further research is necessary to identify potential targets for HIV prevention and care in the vulnerable population of TG women. Study funded by the Miami CFAR (P30AI073961)

Disclosures. All Authors: No reported disclosures

992. Rethinking the 28-day HIV nPEP Dispensing Practice: A Pediatric ID Clinic Analysis

David Zhang, MD¹; Julia Rosebush, DO²; Palak Bhagat, PharmD, BCPS³; Allison Nelson, PharmD⁴; Veena Ramaiah, MD⁵; Elaine Seaton, Master of Science⁶; ¹University of Chicago Medical Center, Chicago, Illinois; ²The University of Chicago, Chicago, Illinois; ³University of Chicago Medicine, Chicago, IL; ⁴University of Chicago Medicine Comer Children's Hospital, Geneva, IL; ⁵University of Chicago Comer Children's Hospital, Chicago, Illinois; ⁶University of Chicago, Chicago, Illinois

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Background. In July 2017, The University of Chicago Comer Children's Hospital Emergency Department (ED) transitioned from a 5-day to a 28-day HIV nPEP (non-occupational post-exposure prophylaxis) dispensation model in an effort to increase adherence. Anecdotal reports of patients lost to follow-up after ED discharge called into question the utility and cost-effectiveness of this practice. We analyzed HIV nPEP follow-up rates in our clinic, explored reasons for nonadherence, and performed basic cost-savings analyses to inform potential changes to our dispensation model.

Methods. A retrospective review of both electronic health and pharmacy records was conducted for patients prescribed 28-days of HIV nPEP in the ED and scheduled for outpatient follow-up in Pediatric ID clinic from July 2017-June 2019. Clinic provider documentation of nPEP adherence and reasons for nonadherence were examined. Patients were given an initial dose of nPEP regimen in the ED and provided all subsequent doses to complete at home. Using average wholesale price (AWP), we calculated the total cost of each regimen and potential savings if a shorter duration of HIV nPEP supply was dispensed.

Results. 50 patients received a 28-day supply of HIV nPEP. Please refer to Table 1 regarding baseline patient characteristics. Of these, only 19 (38%) patients had documented outpatient follow-up after nPEP initiation. Median time to follow-up was 6 days (IQR: 3.0-9.0 days). Of the 19 patients with follow-up, 3 admitted to medication non-adherence. Although side effects were elicited in a total of 9 patients (18%), only 1 cited medication intolerance as the reason for discontinuing their nPEP. Given the relatively short time to follow-up, a potential savings of \$1720-2211/patient could be achieved if a 10-14 day supply was dispensed.

Table 1. Baseline Patient Characteristics and Outcomes Data

Total (n = 50)	N (%)
Mean age in years (range)	12.4 (3.0-17.0)
Female	46 (92%)
nPEP prescribed	
Emtricitabine-tenofovir/Raltegravir	41 (82%)
Zidovudine/Lamivudine/Raltegravir	9 (18%)
Follow-up (regimen based, n = 19)	
Emtricitabine-tenofovir/Raltegravir	14 (74%)
Zidovudine/Lamivudine/Raltegravir	5 (26%)
Follow-up (Age based, n = 19)	
<8 years	5 (26%)
9-12 years	3 (16%)
13-18 years	11 (58%)
Adherence (n = 50)	
Yes	16 (32%)
No	3 (6%)
Unknown	31 (62%)
Adherence based on dosage form (n = 16)	
Emtricitabine-tenofovir/Raltegravir	12 (75%)
Zidovudine/Lamivudine/Raltegravir	4 (25%)
Adverse effects (n = 50)	
Yes	9 (18%)
No	8 (16%)
Unknown	33 (66%)
Adverse effects (reason, n)*	
Nausea/vomiting	5
Abdominal pain	2
Diarrhea	1
Decreased appetite	1
Other	2

*2 patients reported more than 1 adverse effect.

Table 2. Average nPEP Regimen Costs & Potential Savings*

	All (n=50)	Zidovudine/Lamivudine/Raltegravir (n=9)	Emtricitabine-tenofovir/Raltegravir (n=41)
Cost (\$)			
Per patient	3440	1545	3905
Per patient per day	123	55	139
Potential savings per patient (\$, % cost savings)			
If 10-d regimen dispensed	2211 (64%)	993	2510
If 14-d regimen dispensed	1720 (50%)	772	1952

*Based on average wholesale price

Table 3. Regimen, Follow-up and Adherence Stratified by Age

	<8 years (n=9)	9-12 years (n=7)	13-18 years (n=34)
Regimen			
	Zidovudine/Lamivudine/Raltegravir	Emtricitabine-tenofovir/Raltegravir	
Follow-up (n, %)	5 (56%)	3 (43%)	11 (32%)
Adherence (n, %)			
Yes	4 (44%)	2 (29%)	10 (29%)
No	1 (11%)	-	1 (3%)
Unknown	4 (44%)	5 (71%)	23 (68%)

Conclusion. Outpatient follow-up after 28-day HIV nPEP dispensation in our ED was < 40%, calling into question the cost-effectiveness of this dispensation model. While

our current practice alleviates nPEP interruption due to potential insurance issues and pick-up delays, follow-up and adherence are not assured. The significant cost-savings with a shorter supply at the outset may encourage more robust follow-up and adherence.

Disclosures. All Authors: No reported disclosures

993. Risk Factors for Periconception Non-Suppression Among Women Living with HIV in Kisumu, Kenya

Ephrat Fisseha, BS¹; Karen Hampanda, PhD, MPH²; Patrick Oyaro, MBChB, MPH³; Evelyn Brown, BSc⁴; Irene Mukui, MBChB, MPH⁵; Beryne Odeny, MBChB, MPH, PhD(c)⁶; Rena Patel, MD⁶; Lisa Abuogi, MD, MS⁷; ¹University of Colorado School of Medicine, Denver, Colorado; ²University of Colorado, Aurora, Colorado; ³Health Innovations Kenya, Kisumu, Nyanza, Kenya; ⁴University of Washington Kenya, Kisumu, Nyanza, Kenya; ⁵Kenya Ministry of Health, Nairobi, Nairobi Area, Kenya; ⁶University of Washington, SEATTLE, Washington

Session: P-46. HIV: Prevention

Background. Pregnant and postpartum women living with HIV (WLHIV) are a priority population for virologic monitoring and efforts to ensure viral suppression to reduce the risk for vertical-transmission and poor maternal health outcomes. Few studies have examined the role of parity on viral suppression during periconception in WLHIV.

Methods. We present data from the ongoing Opt4Mamas study which enrolled pregnant women with HIV on antiretroviral therapy between March and November 2019 attending antenatal care in five public health facilities in Kisumu County, Kenya. We evaluated associations between various sociodemographic and psychosocial factors and periconception viral suppression (< 40 copies/mL) within 12 months of study enrollment. We conducted univariate and multivariate logistic regressions, calculating odds ratios (OR) and 95% confidence intervals (CI).

Results. Among 497 women enrolled, mean age 29.9 years, 301 (61%) had viral load results available within 12 months of study enrollment. Viral loads were available a median of 18 days from conception (interquartile range 71 days before to 90 days after conception), and 237 women (79%) were virally suppressed. The majority (90%) of women were on a non-nucleoside reverse transcriptase inhibitor and 23 (9%) were on a protease inhibitor-containing regimen. In univariate analysis, women younger than 25 and primigravida women were less likely to be virally suppressed (OR 0.31, 95% CI [0.16 - 0.60] and OR 0.25, 95% CI [0.11 - 0.61] respectively; Table 1). The relationship between primigravida and periconception viral suppression is modified by age and duration on ART. Primigravida women who were younger than 25 years or who had less than 1 year of ART had significantly reduced odds of achieving viral suppression in the past year compared to primigravida women who were older or who had more experience taking ART (OR 0.09, 95%CI [0.03-0.31] and OR 0.09, 95%CI [0.02-0.48] respectively; Table 2).

Table 1: Comparison of Pregnant Women with HIV by Periconception Viral Suppression

Characteristic	Variables	Non-suppressed (VL>40 copies/mL) n=64	Suppressed (VL<40 copies/mL) n=237	Total	OR (95% CI)
Age	<25 years	20 (31%)	29 (12%)	49 (16%)	0.31*** (0.16-0.60)
	≥24 years	44 (69%)	207 (88%)	251 (84%)	1.0 (ref)
Marital Status	Not married	11 (17%)	30 (13%)	41 (14%)	1.0 (ref)
	Married	52 (83%)	207 (87%)	259 (86%)	1.46 (0.67 - 3.10)
Polygamous Relationship	No	48 (89%)	168 (82%)	216 (83%)	1.0 (ref)
	Yes	6 (11%)	38 (18%)	44 (17%)	1.81 (0.72 - 4.53)
Completed Primary School	No	13 (21%)	46 (19%)	59 (20%)	1.0 (ref)
	Yes	50 (79%)	191 (81%)	241 (80%)	1.08 (0.54 - 2.15)
Does your household have electricity?	No	25 (40%)	87 (37%)	112 (37%)	1.0 (ref)
	Yes	38 (60%)	149 (63%)	187 (63%)	1.13 (0.64 - 1.99)
Gravida	Primigravida	11 (17%)	12 (5%)	23 (8%)	0.25* (0.11 - 0.61)
	Multigravida	52 (83%)	224 (95%)	276 (92%)	1.0 (ref)
Parity	Mean (SD)	2.7 (1.6)	2.6 (1.4)	2.7 (1.4)	0.97 (0.79 - 1.2)
	WHO stage at time of enrollment				
	Stage I	28 (52%)	107 (51%)	135 (52%)	1.0 (ref)
	Stage II	7 (13%)	39 (19%)	46 (17%)	1.44 (0.58 - 3.57)
	Stage III	4 (7%)	17 (8%)	21 (8%)	1.10 (0.34 - 3.53)
	Stage IV	1 (2%)	1 (1%)	2 (1%)	0.26 (0.02 - 4.28)
	Missing	14 (26%)	43 (21%)	57 (22%)	-
Duration on ART	<1 year	9 (17%)	18 (9%)	27 (11%)	0.49 (0.20-1.15)
	≥1 year	44 (83%)	181 (91%)	225 (89%)	1.0 (ref)
ART Regimen	NNRTI based	48 (87%)	189 (91%)	237 (90%)	2.63 (0.97 - 7.17)
	PI based	7 (13%)	16 (8%)	23 (9%)	1.0 (ref)
	Other	0 (0%)	2 (1%)	2 (1%)	1.71 (0.67 - 4.35)
Disclosure to Primary Sexual Partner	No	7 (11%)	18 (8%)	25 (8%)	1.0 (ref)
	Yes	56 (89%)	219 (92%)	275 (92%)	1.52 (0.61 - 3.82)
Male Partner Status	Positive	33 (53%)	140 (59%)	173 (58%)	1.0 (ref)
	Negative	21 (33%)	71 (30%)	92 (31%)	1.31 (0.75 - 2.29)
	Don't know	9 (14%)	26 (11%)	35 (11%)	-
Male Partner Support	Did not attend ANC	38 (60%)	149 (63%)	187 (62%)	0.89 (0.50 - 1.57)
	Attended ANC	25 (40%)	87 (37%)	112 (38%)	1.0 (ref)
Moderate Depression	No	59 (94%)	225 (95%)	284 (95%)	1.0 (ref)
	Yes	4 (6%)	11 (5%)	15 (5%)	0.72 (0.22 - 2.35)

ART- antiretroviral treatment, NNRTI- non-nucleoside reverse transcriptase inhibitor, PI- protease inhibitor, ANC- antenatal care
* p<0.05 **p<0.01 ***p<0.001

Table 2: Interaction Effects with Primigravida Status

Characteristic	Variables	OR (95% CI)
Age	Multigravida, young age	0.47 (0.21-1.03)
	Primigravida, older age	0.83 (0.17-4.04)
	Primigravida, younger age	0.09*** (0.03-0.31)
	Multigravida, older age	1 (ref)
Duration on ART	Multigravida, <1 year ART	0.91 (0.29-2.96)
	Primigravida, >1 year ART	0.36 (0.11-1.17)
	Primigravida, <1 year ART	0.09* (0.02-0.48)
	Multigravida, >1 year ART	1 (ref)

* p<0.05 **p<0.01 ***p<0.001

Conclusion. Risk factors for non-suppression around the time of conception in WLHIV include primigravida status, which is modified by age and duration on ART. Interventions targeting viral suppression among WLHIV leading up to their first pregnancy are needed, particularly among those who are newly initiated onto ART or younger age.

Disclosures. All Authors: No reported disclosures

994. Risk for Viral Rebound in the Era of U=U; A CNICS Analysis

Blake Hansen, ScM¹; Tao Liu, PhD¹; Lauri Bazerman, MS²; Mari-Lynn Drainoni, PhD³; Fizza S. Gillani, PhD⁴; Edward Cachay, MD, MAS⁵; Katerina Christopoulos, MD, MPH⁶; Heidi Crane, MD, MPH⁷; Mari Kitahata, MD, MPH⁸; Kenneth H. Mayer, MD, MPH⁸; Richard Moore, MD⁹; Sonia Napravnik, PhD, MPH¹⁰; Aadia Rana, MD¹¹; Benigno Rodriguez, MD¹²; Curt Beckwith, MD¹³; ¹Brown University, Providence, Rhode Island ²The Miriam Hospital, Providence, Rhode Island ³Boston University, Boston, Massachusetts; ⁴Brown University/The Miriam Hospital/Lifespan, Providence, Rhode Island ⁵University of California, San Diego, San Diego, California; ⁶University of California San Francisco, San Francisco, California; ⁷University of Washington, Seattle, Washington; ⁸Harvard Medical School/Fenway Research Institute, Boston, MA; ⁹Johns Hopkins University, Baltimore, MD; ¹⁰University of North Carolina at Chapel Hill, Chapel Hill, NC; ¹¹University of Alabama-Birmingham School of Medicine, Birmingham, Alabama; ¹²Case Western Reserve University, Cleveland, Ohio; ¹³Brown University School of Medicine, Providence, RI

Session: P-46. HIV: Prevention

Background. The “Undetectable equals Untransmittable (U=U)” HIV prevention campaign is a cornerstone of HIV prevention. However, there are few recommendations to guide patients and providers in U=U implementation and limited data on risk factors for viral rebound among persons eligible for U=U.

Methods. We conducted a retrospective multi-center study using data from the CNICS HIV research network to identify risk factors for viral rebound among persons with established viral suppression [two viral loads (VL) and all VLs of < 200 copies/ul within a one-year period (U=U eligible)]. Demographics, patient-reported outcomes, and longitudinal clinical data from 21,359 persons with HIV were analyzed. To include missing data in the analysis, they were treated as a separate category. The primary outcome of viral rebound was defined as any VL > 200 copies/ul within two years after U=U eligibility. A univariable logistic regression model was conducted to identify predictors of viral rebound. Significant variables (p< 0.05) were included in a multivariable logistic regression model. Predictive values of individual variables were captured by adjusted odds ratios (aORs).

Results. From 2011-2019, 12,150 patients met criteria for U=U eligibility and had two years of follow up data. The median age was 46 (IQR: 38-53); 68% male; 51% were white, 39% black. 1544 (13%) experienced viral rebound during follow-up. Forest plot summaries of univariable and multivariable logistic regression models are in Figures 1&2. In multivariable analysis, Black race (aOR=1.56, p< 0.001); MSM-IDU risk (aOR=1.38, p=0.006); lower QoL score (aOR=1.49, p=0.005); poorer ART adherence (aOR=1.84, p< 0.001); duration of lifetime ART [aOR=1.47 (10+ yrs), = 1.37 (5-10 yrs); and = 1.28 (2-5 yrs), p< 0.001]; use of InSTIs after eligibility (aOR=1.60, p< 0.001); current smoker (aOR=1.49, p< 0.001), current amphetamine (aOR=1.83, p< 0.001) or cocaine use (aOR=1.46, p=0.012), were associated with viral rebound. In both analyses, older age was protective against viral rebound.