

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.

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

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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.

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

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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.