ORIGINAL ARTICLE

ADHERENCE TO ANTIRETROVIRAL TREATMENT BY PREGNANT WOMEN LIVING WITH HIV: COMPARISON OF THREE METHODS

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Highlights: (1) Adherence to treatment in pregnant women living with HIV did not reach ideal levels. (2) Compares adherence among viral load, drug withdrawal, and validated scale. (3) Older pregnant women, with more children and prenatal consultations, have greater adherence.

http://dx.doi.org/10.21527/2176-7114.2026.51.16250

How to cite:
Stedile FD, Schiavenin L, Chaves EBM, Gnatta D. Adherence to antiretroviral treatment by pregnant women living with hiv: comparison of three methods. Rev. Contexto & Saúde. 2026;26(51):e16250

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ADHERENCE TO ANTIRETROVIRAL TREATMENT BY PREGNANT WOMEN LIVING WITH HIV: COMPARISON OF THREE METHODS

ABSTRACT

Objective: To evaluate the prevalence of adherence to antiretroviral therapy among pregnant women using three assessment methods, compare adherence across these methods, and identify risk factors for non-adherence. Method: A cross-sectional study was conducted with pregnant women receiving care at a high-risk prenatal clinic of a tertiary hospital in southern Brazil. Participants completed an interview that included sociodemographic and clinical data collection, as well as the administration of an instrument for assessing adherence to antiretroviral therapy. Laboratory HIV viral load data and pharmacy dispensing records were also used to measure adherence. The study was approved by the Research Ethics Committee.
Results: Forty-one pregnant women participated. Adherence rates varied depending on the assessment method: viral load suppression (78.0%), frequency of medication withdrawal from the pharmacy (31.7%), and the validated adherence scale (29.3%). The three methods showed no agreement. Older pregnant women, those with more children, higher levels of education, and more prenatal visits were more likely to adhere to treatment. Conclusion: Adherence to antiretroviral therapy among pregnant women living with HIV was insufficient, increasing the risk of vertical transmission. The different assessment methods yielded divergent results. Factors such as age, number of children, education level, and prenatal attendance influenced adherence. The findings highlight the importance of combining different assessment methods to obtain a more comprehensive understanding of patients' treatment-related needs.

Keywords: Pregnant women; HIV; Antiretroviral therapy; Treatment adherence; Vertical transmission.

INTRODUCTION

Data from the 2023 HIV/AIDS Epidemiological Bulletin indicate that between 2000 and 2023, Brazil recorded 158,429 cases of HIV infection in pregnant, laboring, and postpartum women, including 7,943 new cases in 2022, representing a rate of 3.1 cases per thousand live births. The Southern region—particularly the city of Porto Alegre (RS)—reported alarming rates, reaching 17.0 cases per thousand live births in 2022, raising a public health alert.[1]

ADHERENCE TO ANTIRETROVIRAL TREATMENT BY PREGNANT WOMEN LIVING WITH HIV: COMPARISON OF THREE METHODS

Adherence to antiretroviral therapy (ART) during pregnancy is essential to prevent vertical transmission (VT) of HIV, which may occur during pregnancy, childbirth, or breastfeeding.[2,3] The risk of VT increases with higher maternal HIV viral load (HIV-VL) or placental infections resulting from co-infections.[3] Despite recommendations for ART use, only 70% of pregnant women achieve viral suppression near delivery, underscoring challenges in treatment adherence and VT prevention.[4] In planned pregnancies with appropriately implemented interventions during all periods posing VT risk, transmission can be reduced to less than 2%. However, without proper planning and follow-up, the risk may range from 15% to 45%.[4,5]

The World Health Organization (WHO) defines adherence as the extent to which an individual follows therapeutic recommendations, influenced by physical, social, and psychological factors.[6] The 2023 Continuous Care Manual for People Living with HIV/AIDS expands this concept, emphasizing correct antiretroviral use as prescribed, patient empowerment, strong patient–provider relationships, access to information, clinical follow-up, individualized care, integration into the Health Care Network and intersectoral networks, and shared decision-making to promote autonomy and co-responsibility.[7]

Methods for assessing treatment adherence include direct techniques, such as metabolite analysis in biological fluids, and indirect techniques, such as self-reports, pill counts, and pharmacy records. Although each approach has limitations, they are complementary in identifying barriers to treatment.[8] A systematic review from Ethiopia (2024) found adherence rates of 81.58%,[9] while a study by Fernandes-Luiz (2022) reported a 45% adherence rate.[10] The wide variation in reported adherence rates may be explained by differences in measurement methods, cut-off points defining adherence, and study designs.

Viral suppression is the primary goal of all HIV-related interventions during pregnancy. To ensure the success of current policies regarding treatment and follow-up of pregnant women with HIV in prenatal and postpartum care, healthcare teams must consider the individual and dynamic factors that may influence adherence.[4]

This study evaluated ART adherence among pregnant women using three methods: the validated Antiretroviral Treatment Adherence Assessment Questionnaire (CEAT-VIH), frequency of pharmacy medication withdrawal, and medical record data on HIV viral load. In addition, it examined associations between adherence and sociodemographic or clinical variables, as well as the level of agreement among the methods employed.

METHODS

A cross-sectional study was conducted at the High-Risk Prenatal Clinic of the *Hospital de Clínicas de Porto Alegre* (HCPA), a national and international reference center for high-complexity care, with 96.3% of services provided through Brazil's Unified Health System (SUS). The clinic's schedule, dedicated to the care of pregnant women living with HIV, allows for approximately 90 new patient visits per year and around 380 consultations annually.

The study population consisted of pregnant women with a previous HIV diagnosis who were receiving follow-up care at the High-Risk Prenatal Clinic. Inclusion criteria were: being 18 years of age or older, attending the scheduled consultation, and agreeing to participate by reading, understanding, and signing the Free and Informed Consent Form (FICF).

After being invited in the clinic's waiting room, participants were interviewed in a private room by three trained interviewers with experience in caring for pregnant women living with HIV (a pharmacy undergraduate student, a pharmacy resident, and the clinic physician). Each interview lasted approximately 30 minutes, and the documents were completed by the researcher without influencing the participant's responses. Interviews took place between April and October 2022.

Two instruments were used to collect study information

1) Sociodemographic and clinical characterization questionnaire, which included: age, race/skin color, education level, average family income, marital status, number of children, number of household members, pregnancy-related clinical data, HIV diagnosis history, alcohol and psychoactive substance use, condom use, current

medications and antiretroviral therapy, support network, knowledge about HIV treatment, facilitators and barriers to treatment, adverse reactions to antiretrovirals, and reasons for missing medication doses.

2) Antiretroviral Treatment Adherence Assessment Questionnaire (CEAT-VIH), translated and validated for use in Brazil. The original instrument was developed by Remor (2002)[11] and validated in Brazil by Remor and collaborators (2007)[12]. It is a quick, self-administered, 17-item instrument (version 2.0) designed to measure adherence to antiretroviral therapy in adults living with HIV. It provides a Global Adherence Index (total score) and scores for specific facets. Higher scores indicate greater adherence. Responses use a five-point Likert scale, and the total score ranges from 17 to 85 points. In this study, only the global adherence score was used, and patients scoring ≥75 (corresponding to the 75th percentile of the sample) were classified as adherent.

Additional data were obtained from the Sistema Laudo platform (https://laudo.aids.gov.br/login) to collect laboratory results and verify pharmacy dispensing frequency. The most recent HIV viral load test, CD4+ and CD8+ T-cell counts, and the last three antiretroviral dispensing records prior to the interview were retrieved.

Viral load was used as a direct adherence assessment method. Patients were classified as adherent if they had an undetectable viral load (<50 copies/mL). Adherence based on pharmacy withdrawal was determined according to Ministry of Health criteria: pregnant women who delayed medication pick-up by more than seven days beyond the scheduled date were classified as non-adherent.[13]

To minimize bias, a validated scale was used, ensuring reliability and standardization of information. Interviewers also conducted paired interviews at the beginning of data collection to apply uniform protocols and reduce subjective influence.

No sample size calculation was performed; instead, all eligible patients waiting for prenatal care during the study period were invited to participate.

Data were stored in Microsoft Excel 2016 and analyzed using SPSS 18.0. Descriptive statistics included frequency distributions and measures of central tendency and dispersion. Bivariate analyses examined relationships between treatment adherence and the collected variables and compared groups of adherent and non-adherent pregnant women. Pearson's chi-square test was used for categorical variables. Continuous variables with normal distribution were analyzed using Student's t-test for independent samples and Pearson's correlation. The Kappa coefficient was used to assess agreement between adherence assessment methods. Statistical significance was set at $p < 0.05$.

This study was approved by the Research Ethics Committee of the *Hospital de Clínicas de Porto Alegre* through the *Plataforma Brasil* system, approval number 5.193.672.

RESULTS

A total of 41 pregnant women were included in the study. The mean age was 30 years, 43.9% self-identified as Black, and the average education level was 10 years. Family income between one and two minimum wages was the most prevalent category (43.9%), and 92.7% reported incomes of up to three minimum wages. The mean number of children was 1.8 (range: 0–5), and the mean number of household members was 3.8 (range: 1–8). Most participants (78%) lived with the baby's father.

Complete demographic, socioeconomic, and clinical characteristics are presented in Table 1.

ADHERENCE TO ANTIRETROVIRAL TREATMENT BY PREGNANT WOMEN LIVING WITH HIV: COMPARISON OF THREE METHODS

TABLE 1: Demographic, socioeconomic, and clinical variables of pregnant women living with HIV (n= 41)

		n	%	Mean	Standard Deviation
Age (years)				30,05	6,33
Education (years)				10,10	3,22
Nº of children				1,88	1,54
Nº of people living in the house				3,78	1,62
Nº of pregnancies				3,41	2,37
GA at interview (weeks)				22,49	11,03
GA at 1st PN consultation (weeks)				9,27	5,18
Nº of PN consultations until interview				4,95	3,54
Nº of sexual partners				0,93	0,26
Color	Black	18	43,9		
	White	16	39,0		
	Brown	6	14,6		
	Yellow	1	2,4		
Family income	Up to 1 MW	11	26,8		
	1 a 2 MW	18	43,9		
	2 a 3 MW	9	21,9		
	3 a 4 MW	2	4,9		
	More than 4 MW	1	2,4		
Marital status	With partner	26	63,4		
	Married	8	19,5		
	Single	7	17,1		
Lives with baby's father	Yes	32	78,0		
	No	9	22,0		
HIV diagnosis in pregnancy	Yes	7	17,1		
	No	34	82,9		
HIV transmission	Sexual	31	75,6		
	Vertical	6	14,6		
	Does not know	4	9,8		
ART used	TDF/3TC + DTG (1x)	22	53,7		
	TDF/3TC + ATV (1x)	9	21,9		
	TDF/3TC/EFV (1x)	8	19,5		
	TDF/3TC (1X) + RAL (2x)	1	2,4		
	NI	1	2,4		

Legend: GA: gestational age, PN: prenatal, MW: minimum wage, TDF: tenofovir 300mg, 3TC: lamivudine 300mg, ATV: atazanavir 300mg, EFV: efavirenz 600mg, RAL: raltegravir 400mg, NI: not identified/ Source: Research data

Regarding pregnancy and HIV-related aspects, participants had a mean of three pregnancies (range: 1–13), and the mean gestational age at the first prenatal visit was nine weeks. Most participants (75.6%) reported acquiring HIV through sexual transmission; six (14.6%) reported vertical transmission, although none reported having children with HIV acquired vertically. Seven pregnant women (17.1%) received their HIV diagnosis during the current pregnancy.

The median time since HIV diagnosis and ART use was six years. Ten participants were not using ART before pregnancy: seven due to receiving the diagnosis during the current pregnancy and three who had a prior diagnosis but were not adhering to treatment. The most commonly used ART regimen (53.7%) was tenofovir 300 mg + lamivudine 300 mg (once daily) + dolutegravir 50 mg (once daily). Only one participant reported taking medication twice daily, using the regimen tenofovir 300 mg + lamivudine 300 mg (once daily) + raltegravir 400 mg (twice daily).

Treatment Adherence – Viral Load Method

Adherence to antiretroviral treatment, assessed based on each patient's most recent available viral load exam, is presented in Table 2.

Table 2: Treatment adherence evaluated through the viral load result in HIV pregnant women (n=41)

Viral Load ranges (VL)	Adequate Adherence	N	%
<50	YES	32	78,1
50 - 1000	NO	1	21,9
>1000	NO	8	

Source: Research data

Among the nine pregnant women (21.9%) whose viral load was detectable, eight (88.8%) had levels above 1,000 copies/mL.

One patient had a viral load below 200 copies/mL, typically defined as a "blip," which refers to the sporadic detection of low-level viremia. Blips are generally attributed to replication

of wild-type virus originating from latently infected cells (viral reservoirs) and do not indicate virologic failure[7].

Treatment Adherence – Pharmacy Medication Withdrawal Frequency Method

The second adherence assessment method involved reviewing the dates of the last three antiretroviral medication withdrawals. Analysis of these dispensing records showed that 28 patients (68.3%) did not withdraw medications regularly—that is, they collected their antiretrovirals more than seven days past the scheduled date for the next withdrawal. Only 13 patients (31.7%) were classified as adherent.

It is noteworthy that, based on the last three pharmacy withdrawals, 15 patients (36.6%) met the criteria for treatment abandonment at some point. This classification applies when the interval between antiretroviral withdrawals exceeds 100 days from the date scheduled in the Medication Logistics Control System (Siclom), according to the criteria defined by the Clinical Monitoring System for People Living with HIV/AIDS (SIMC).

All seven patients (17.1%) who received their HIV diagnosis during pregnancy maintained regular medication withdrawals, and six of them had undetectable viral loads.

Treatment Adherence – CEAT-VIH Scale Method

The third adherence evaluation method was the application of the CEAT-VIH scale. According to this instrument, 29.3% of participants achieved adequate adherence (defined as a raw score $\geq$75).

Demographic and Clinical Variables and Association with Treatment Adherence

Statistically significant differences were found for age, with older pregnant women demonstrating higher adherence to treatment ($p = 0.004$).

Patients with a higher number of prenatal consultations also showed a greater prevalence of adherence compared to those with fewer consultations (p = 0.005).

There was a trend toward higher adherence among women with higher levels of education (p = 0.06), and pregnant women with more children exhibited higher adherence than those with fewer children (p = 0.03).

The variables number of pregnancies, time since diagnosis, duration of ART use, number of pills taken per day, race/skin color, and income did not show statistically significant differences between groups, as summarized in Table 3.

Table 3: Demographic, socioeconomic, and clinical variables of pregnant women living with HIV analyzed for treatment adherence by three methods (n=41)

Quantitative Variables	Method of Adherence Assessment	Adherence	Mean	Standard Deviation	p Value
Age, in years	Viral load	No	27,33	6,12	0,15
		Yes	30,81	6,27	
	Farmacy withdrawal	No	29,29	6,58	0,26
		Yes	31,69	5,63	
	CEAT-VIH Scale	No	28,76	6,58	**0,04***
		Yes	33,17	4,52	
Education, in years	Viral load	No	8,78	2,77	0,17
		Yes	10,47	3,28	
	Farmacy withdrawal	No	9,46	2,96	0,06
		Yes	11,46	3,45	
	CEAT-VIH Scale	No	9,76	2,87	0,30
		Yes	10,92	3,96	
Number of pregnancies	Viral load	No	2,22	0,97	0,09
		Yes	3,75	2,54	
	Farmacy withdrawal	No	3,79	2,51	0,14
		Yes	2,62	1,85	
	CEAT-VIH Scale	No	3,52	2,61	0,68
		Yes	3,17	1,70	
Number of children	Viral load	No	0,89	0,78	**0,03***
		Yes	2,16	1,59	
	Farmacy withdrawal	No	2,14	1,56	0,10
		Yes	1,31	1,38	
	CEAT-VIH Scale	No	1,83	1,56	0,75
		Yes	2,00	1,54	
Time since diagnosis, in years	Viral load	No	13,11	9,66	0,67
		Yes	7,28	7,72	

Time using ART, in years	Farmacy withdrawal	No	10,11	7,46	0,08
		Yes	5,23	9,65	
	CEAT-VIH Scale	No	9,55	9,03	0,24
		Yes	6,17	6,42	
	Viral load	No	7,81	8,07	0,62
		Yes	6,50	6,64	
Number of pills ingested per day	Farmacy withdrawal	No	7,69	5,46	0,22
		Yes	4,84	9,22	
	CEAT-VIH Scale	No	7,60	7,27	0,25
		Yes	4,84	5,69	
	Viral load	No	2,11	0,60	0,76
		Yes	2,03	0,69	
Number of consultations until interview	Farmacy withdrawal	No	2,14	0,70	0,19
		Yes	1,85	0,55	
	CEAT-VIH Scale	No	2,14	0,69	0,19
		Yes	1,83	0,58	
	Viral load	No	3,67	3,46	0,22
		Yes	5,31	3,53	
	Farmacy withdrawal	No	3,93	2,93	**0,005***
		Yes	7,15	3,85	
	CEAT-VIH Scale	No	4,55	3,32	0,27
		Yes	5,92	4,01	
Variáveis Qualitativas			**Não**	**Sim**	
Skin color (White)	Viral load	No	6	19	0,69
		Yes	3	13	
	Farmacy withdrawal	No	18	7	0,52
		Yes	10	6	
	CEAT-VIH Scale	No	18	7	0,82
		Yes	11	5	
Income (up to 3 minimum wages)	Viral load	No	3	9	1,00
		Yes	6	23	
	Farmacy withdrawal	No	9	3	0,72
		Yes	19	10	
	CEAT-VIH Scale	No	7	5	0,26
		Yes	22	7	

***statistical significance (p<0.05).** Source: Research data

Comparison of Results from the Three Adherence Methods

An analysis of the three adherence assessment methods revealed that only seven patients (17.1%) were classified as adherent by all methods, while six patients (14.6%) were identified as non-adherent by all three.

ADHERENCE TO ANTIRETROVIRAL TREATMENT BY PREGNANT WOMEN LIVING WITH HIV: COMPARISON OF THREE METHODS

Importantly, 17 patients (41.5%) were considered adherent exclusively according to the viral load method, as shown in Table 4.

TABLE 4: Frequency of agreement among the three methods used to assess adherence to antiretroviral treatment (n=41)

Treatment Adherence	Viral Load	Pharmacy Withdrawal	CEAT-VIH Scale	N	%
	Y	N	N	17	41,5
	Y	Y	Y	7	17,1
	N	N	N	6	14,6
	Y	Y	N	5	12,2
	Y	N	Y	3	7,3
	N	N	Y	2	4,9
	N	Y	N	1	2,4
Total patients				41	100

Source: Research data

Kappa analysis was performed to evaluate agreement between methods. Reasonable agreement was observed between pharmacy medication withdrawal frequency and the CEAT-VIH scale, with 73.2% agreement (p = 0.018).

Agreement between viral load results and the other two methods was weak.

TABLE 5: Agreement of methods using Kappa analysis

Assessment Method	% Agreement	Kappa	P
Viral Load x CEAT-VIH Scale	41,5	0,05	0,599
Pharmacy Medication Withdrawal Frequency x CEAT-VIH Scale	73,2	0,367	0,018
Viral Load x Pharmacy Withdrawal	48,8	0,15	0,133

Source: Research data

DISCUSSION

The profile of pregnant women in this study reflects a distribution similar to that reported in national data and by other researchers, consistent with findings from Beck et al. (2018) and Silva et al. (2018), in which most pregnant women were between 20 and 34 years of age.[1,14,15]

However, differences emerged regarding skin color and education level. While our findings demonstrated a predominance of self-identified Black pregnant women, followed by White and Brown women, studies conducted by Trindade et al. (2020) and Barbosa et al. (2018) reported Brown skin color as the most prevalent, at 89.8% and 65.6%, respectively.[16,17] Additionally, the pregnant women in our sample had a higher level of education compared with national data. Barbosa et al. (2018) and Trindade et al. (2020) describe a higher prevalence among women who had completed only 5th to 8th grade.[1,16,17]

Regarding pregnancy characteristics, both the average gestational age at the first prenatal visit and the average number of consultations up to the time of the interview were consistent with Ministry of Health recommendations, underscoring the importance of early prenatal follow-up.[4]

Sexual transmission was the most prevalent mode of HIV acquisition, aligned with current literature and the 2023 HIV/AIDS Epidemiological Bulletin, which reports that 84.7% of women acquired HIV sexually.[1,14] In our study, vertical transmission was higher than the national average, possibly because the research was conducted in a high-risk referral center.

The most commonly used ART regimen was tenofovir + lamivudine (TDF 300 mg + 3TC 300 mg) combined with dolutegravir (DTG 50 mg), aligning with the current Ministry of Health guidelines, which recommend that pregnant women initiating ART—regardless of

gestational age and without prior exposure—receive a regimen containing two nucleoside reverse transcriptase inhibitors (NRTIs) plus a third antiretroviral.[4] Integrase inhibitors are supported by evidence demonstrating superior genetic barrier, tolerability, viral suppression, and immunologic response. The regimen is also favored due to its simple once-daily dosing and lower risk of adverse events such as lipodystrophy and hematologic toxicity.[4]

Despite these recommendations, the 2023 Epidemiological Bulletin reported that only 66.8% of pregnant women used ART during prenatal care—far below the >95% coverage required for certification of HIV vertical transmission elimination. Of pregnant/postpartum women, 13.5% did not use ART, and 19.7% had no information regarding therapy use.[1]

In this study, treatment adherence based on the most recent viral load was 78.1%, higher than the 51.7% reported by Faria et al. (2014), which used the same method.[18] Another study conducted in Porto Alegre reported that 62% of pregnant women in the third trimester had undetectable viral load (≤50 copies/mL), indicating adequate adherence.[19]

In contrast, adherence assessed through pharmacy medication withdrawal frequency was 31.7%, lower than findings from previous studies such as Gutierrez et al. (2012) (39.3%)[20] and Henegar et al. (2015), which found 89.1% adherence among 7,510 pregnant women living with HIV.[21] A study analyzing SICLOM dispensing dates found adequate adherence in 61.4% of patients.[22]

The lower adherence rate observed in this study using pharmacy withdrawal data may be partially explained by the COVID-19 pandemic, which limited mobility and may have delayed medication withdrawal beyond the recommended time. Additionally, pharmacy dispensing records may overestimate adherence because picking up medication does not guarantee actual medication intake.

Regarding the Global Adherence Index (CEAT-VIH), only 29.3% achieved adequate adherence (score ≥75), a percentage similar to other studies using the same scale. Silva (2017), Zuge (2017), and Goulart (2018) found adherence rates of 30%, 16.8%, and 9.3% in Natal/RN, central-west RS, and Florianópolis/SC, respectively.[23-25] Schoenher (2022) also observed that most participants (63.6%) exhibited insufficient adherence, with only 36.4% achieving

strict/adequate adherence. It is important to note that the CEAT-VIH scale does not include questions specific to pregnant women and was validated for adults living with HIV.[22]

When analyzing associations between sociodemographic variables and adherence, our findings indicate that older pregnant women tend to be more adherent, possibly due to greater awareness of HIV risks and a more established social support network. Similarly, women with more children may adhere better because maintaining their own health is essential for caregiving. Martins et al. (2023) found that women older than 24 years were almost twice as likely to adhere to ART.[28]

A higher number of prenatal visits was also associated with better adherence, likely due to more consistent medical follow-up and emotional support, particularly in preventing vertical transmission. These results are consistent with findings by Faria et al. (2014), who reported that pregnant women with undetectable viral loads tended to start prenatal care earlier, had more consultations, and were more educated.[18]

Higher education was also associated with better adherence, possibly related to improved comprehension of health information, self-management skills, and access to health education. Martins et al. (2023) also demonstrated that women with more than eight years of schooling had higher odds of adhering to ART.[28]

Non-adherence levels varied substantially across the three methods used, from 21.9% (viral load method) to 70.7% (CEAT-VIH). A systematic review including 14 studies and 4,883 African pregnant women living with HIV reported a combined inadequate adherence prevalence of 28.12%.[26] A study conducted in Pará with 2,400 pregnant women found a non-adherence rate of 31.2%,[17] similar to a study from Ethiopia reporting 34%.[27]

Such variation reflects differences in study design, adherence assessment methods, and adherence cut-off points. These findings highlight the need to improve adherence among pregnant women—a critical concern given the strong emphasis of Brazilian health policy on preventing vertical transmission. Therefore, health teams must implement strategies for continuous monitoring of antiretroviral dispensing, enabling early intervention before missed

withdrawals or treatment abandonment occur. Alerts such as missed appointments or delayed withdrawals can signal the need for personalized support.[7]

The differences in adherence prevalence among the three methods confirm that they are not interchangeable but instead complement one another. It is essential for health professionals to understand the strengths and limitations of each method and, ideally, use more than one in clinical practice. Each approach offers specific advantages and disadvantages: viral load (high reliability vs. high cost), pharmacy withdrawal data (simplicity vs. inability to confirm actual use), and validated scales (low cost vs. lower sensitivity).[8]

Several factors may explain discrepancies among methods, including:

1) High potency of antiretroviral therapy. Integrase inhibitors, particularly dolutegravir—the most used regimen in this study—achieve rapid viral suppression. Occasional adherence lapses may therefore not immediately raise viral load. On average, newly initiated ART takes 3–6 months to achieve undetectable viral load.[4]

2) COVID-19 pandemic. Limited mobility and recommendations to avoid exposure may have delayed pharmacy withdrawals beyond the 7-day cut-off used in this study.

3) Evaluation limited to three withdrawals. Women may have stocked medication at home or used partners' medication, as many couples share the same regimen.

4) CEAT-VIH limitations. The scale is validated for adults with HIV, not specifically for pregnant women.

Adherence to HIV treatment involves more than the correct use of prescribed medications. It encompasses patient empowerment, trust in the healthcare team, access to information, clinical monitoring, adaptation to individual needs, integration into health networks, and shared decision-making. These aspects strengthen co-responsibility and foster autonomy.[7]

This study has limitations: small sample size, recruitment at a single center, and convenience sampling, which may affect generalizability. Self-reported adherence may be influenced by social desirability. Moreover, the COVID-19 pandemic may have contributed to lower adherence than expected, particularly in the pharmacy withdrawal method. Despite these

limitations, the study has notable strengths, including the comparison of three distinct adherence assessment methods and the focus on pregnant women—a group for whom non-adherence has serious implications due to the risk of vertical transmission.

CONCLUSION

The findings reveal that adherence to treatment among pregnant women living with HIV did not reach ideal levels, raising significant concern due to its direct impact on the risk of vertical HIV transmission. Adherence rates differed considerably across the three assessment methods: viral load analysis (78.0%), pharmacy medication withdrawal frequency (31.7%), and the CEAT-VIH scale (29.3%).

Older women, those with more children, higher education levels, and greater prenatal care attendance demonstrated higher adherence.

This study highlights the importance of using more than one adherence assessment method during prenatal care. Because each method captures different dimensions of adherence, their combined use offers a more comprehensive understanding of patient needs and promotes more targeted clinical interventions.

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Submitted: August 8, 2024

Accepted: June 25, 2025

Published: January 2, 2026

ADHERENCE TO ANTIRETROVIRAL TREATMENT BY PREGNANT WOMEN LIVING WITH HIV: COMPARISON OF THREE METHODS

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All authors approved the final version of the manuscript.	
Conflito of interest:	There is no conflict of interest.
Funding:	Does not have funding.
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