PrEP Discontinuation and High HIV Incidence in South African Pregnant and Postpartum Women

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BACKGROUND

High HIV incidence is a major concern for pregnant and breastfeeding women (PBFW) in South Africa (SA) due to risk of HIV acquisition doubling during these periods. The availability of oral pre-exposure prophylaxis (PrEP) for PBFW in SA health facilities is still limited and PrEP discontinuation remains a challenge to effective use in this population.

METHODS

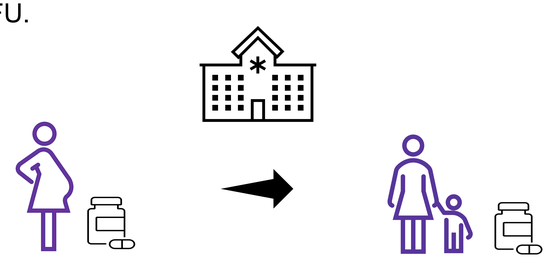
In an antenatal clinic based in Cape Town, SA, the observational study recruited pregnant women without HIV between Aug 2019–Oct 2021, with follow-up through 12 months postpartum.

At quarterly visits, the study provided:

- ❖ HIV testing and counselling, to monitor serostatus of PBFW
- ❖ Oral PrEP (TDF/FTC)

In addition, HIV results, CD4 counts, and viral loads were reviewed for all study participants at the end of follow-up to confirm final serostatuses in electronic patient and laboratory files.

We calculated HIV incidence rate using study follow-up person-time of Aug 2019 – Feb 2023. The numerator included seroconversions in study and lab results (incl. lost to follow-up [LTFU]). HIV incidence was stratified by pregnancy and postpartum time, using estimated delivery dates for those who were LTFU.



Postpartum women who discontinue PrEP have a high *incidence* rate. Effective interventions for post-delivery PrEP use is essential.

RESULTS

- N=1195 women enrolled in study; 1009 (84%) received PrEP and 82% confirmed PrEP initiation through self-report.
- After 12 months postpartum follow-up, 283 (26%) women continued PrEP use.
- N=16 women (0.5%) seroconverted over 1684.8 woman-years follow-up with an **HIV incidence rate of 0.95/100 woman-years** [95% confidence interval (CI) 0.58–1.55].
  - 1 (6%) discontinued PrEP and seroconverted during pregnancy
  - The remaining 15 participants seroconverted during postpartum period
    - 2 women (13%) never initiated PrEP
    - 12 women (75%) discontinued PrEP
    - 1 women (6%) reported inconsistent PrEP use in last 30 days

Table 1. Rates of HIV incidence in PrEP-PP Cohort Study (2019-2022), Cape Town, South Africa

	Time in study (years)	Seroconversions (n)	Rate per 100 years	[95% Confidence interval]	
By PrEP use					
Continued PrEP	889.3151	1	0.1124	0.01584	0.7982
Discontinued PrEP	795.4521	15	1.886	1.137	3.128
By pregnancy status					
Pregnant	357.9836	1	0.2793	0.03935	1.983
≤6 months pp	563.2576	6	1.065	0.4318	2.216
>6 months pp	763.526	9	1.179	0.6133	2.265
Total	**1684.767**	**16**	**0.9497**	**0.5818**	**1.55**

* Continued PrEP: Self-reported PrEP use in last 3 months at final study visit

RESULTS (cont.)

- HIV incidence was higher in women who had **stopped or never started PrEP (1.89/100 woman-years [95% CI: 1.14 – 3.13] vs 0.11/100 woman-years [95% CI: 0.02 – 0.80] continued PrEP)**.
- Postpartum women had **higher hazard of HIV compared to pregnant (HR: 4.36, p-value: 0.051)**.
- In the first 6 months postpartum, HIV incidence was 1.07/100 woman-years [95% CI 0.43–2.22] and 60% of the women seroconverted later in postpartum (>6 months) in 1.18/100 woman-years [.95% CI: 0.61 – 2.26]

CONCLUSIONS

Despite the high PrEP initiation at enrolment, we observed a high HIV incidence rate in postpartum in women who had started PrEP and discontinued, highlighting the importance of appropriate interventions targeting postdelivery PrEP continuation through integration of PrEP delivery with services such as family planning and baby visits.

ADDITIONAL KEY INFORMATION

- Clinical trials reference: NCT03902418

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