USE OF A TENOFOVIR URINE TEST TO IMPROVE PrEP ADHERENCE AND PREDICT NON-RETENTION

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1 BACKGROUND

- Daily pre-exposure prophylaxis (PrEP) effectively prevents new HIV infections.
- Poor adherence and retention are pervasive in certain populations, undermining PrEP's utility.
- Objective adherence monitoring (OAM) tools that identify non-adherent patients at the point of clinical encounter and drive behavioral change are urgently needed.

2 METHODS

Clinical and testing procedures

- Urine samples were collected from PrEP patients at 16 clinics in the US during routine visits.
- Adherence test results were returned to patients and non-adherent individuals received enhanced adherence support per standard clinic operating procedures
- A Liquid Chromatography Mass Spectrometry (LC-MS/MS) urine test for Tenofovir (TFV) was used

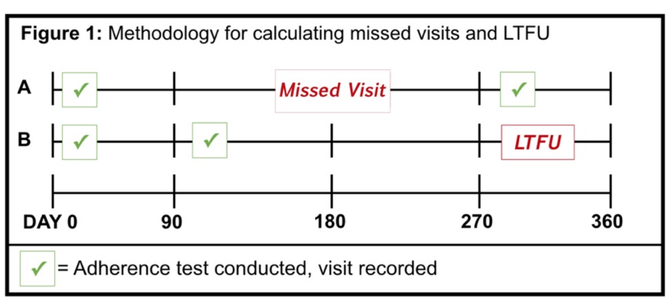
Improvement in adherence

- We assessed results from patients who attended ≥2 visits and analyzed follow-up test results to determine if non-adherent patients had repeat non-adherence or improved adherence at their next visit.

Retention in care

- Clinic visits were recorded based on dates of adherence testing. Missed visits were defined as a gap in care of >120 days between visits. LTFU was defined as a gap in care of >180 days with no future visit (Figure 1).
- Rates of missed visits and LTFU were calculated based on patients' adherence status at the previous visits.

Figure 1: Methodology for calculating missed visits and LTFU



Objective adherence monitoring can be a key tool to identify and improve behavioral determinants of PrEP efficacy

3 RESULTS

Improvement in adherence

- 688 patients received urine screening and targeted adherence support at ≥2 visits.
- Average time between visits 1 and 2 was 84 days (IQR 98-104).
- Of the 606 adherent patients at the first visit, 544 (88%) remained adherent at Visit 2. Of the 82 non-adherent patients at Visit 1, 61 (74%) were adherent at their next visit (Figure 2).

Retention in care

- Non-adherent patients were 70% more likely to miss their next visit and 114% more likely to be LTFU.
- If an initially non-adherent individual became adherent at their next visit, their chance of missing a visit or becoming LTFU dropped to the same level as patients with two consecutive adherent visits (25% vs 25%, 9% vs 8%, respectively) (Figure 3).

Figure 2: Improvement in adherence proportions after receiving OAM

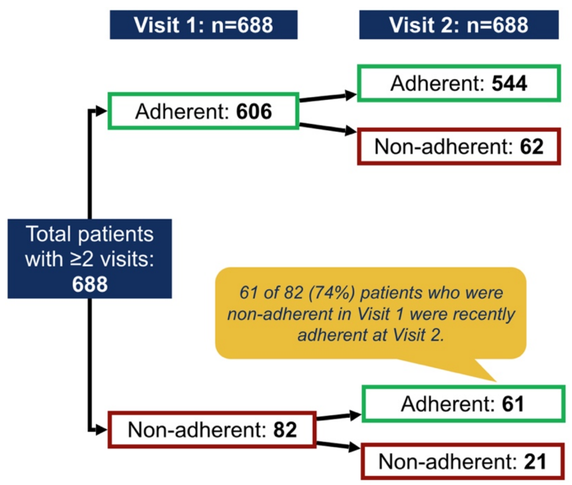
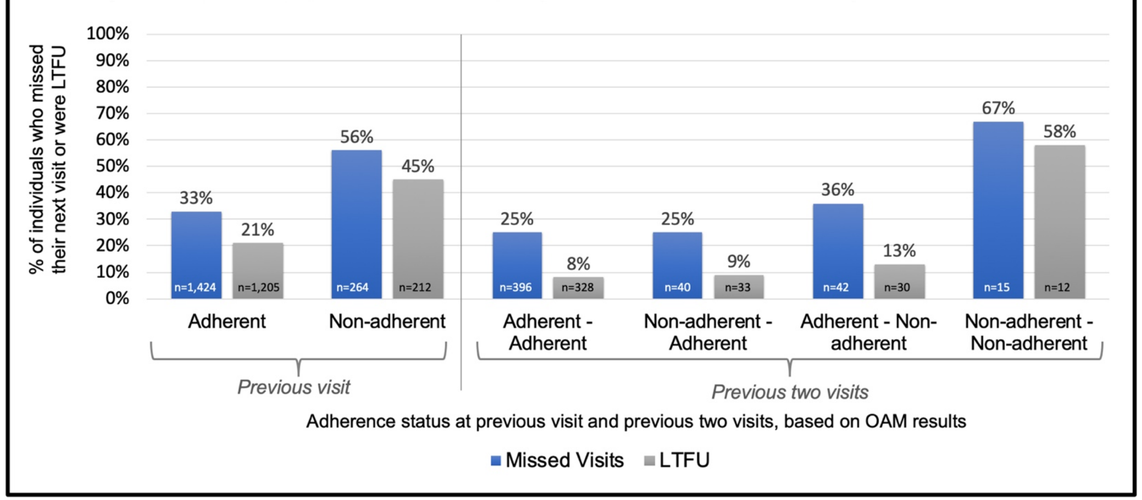


Figure 3: Proportion of PrEP patients who subsequently missed a visit or were LTFU following a visit with OAM, 16 clinics



4 CONCLUSIONS

- Use of OAM coupled with targeted support for non-adherent individuals was associated with increased adherence.
- OAM also proved to be an invaluable tool to predict future non-retention and demonstrated the potential to reduce non-retention.
- A limitation of this study is that there is no control group, so positive results cannot be attributed to the intervention.
- This evidence indicates that OAM can be a key tool to identify and improve behavioral determinants of PrEP efficacy.

5 CONTACT INFORMATION

Contact us

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