NAPCRG 52nd Annual Meeting — Abstracts of Completed Research 2024.

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## Title

*Clinical outcomes of administering an ePROM of barriers to adherence to ART to people with HIV through a patient portal* 

# Priority 1 (Research Category)

Clinical research (other)

# Presenters

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# Abstract

Context: Adherence to antiretrovirals (ART) by people with HIV (PWH) is crucial, however, many face obstacles that go undiscussed with health professionals. We used the patient portal (Opal) to administer the I-Score, a 7-item electronic patient-reported outcome measure (ePROM) of barriers to ART adherence.

Objective: To describe patient and service-related outcomes of the I-Score intervention and outline adherence barrier management by physicians.

Study Design Analysis: 6-month one-arm implementation pilot study.

Setting: A hospital-based clinic in Montreal, Canada.

Population: Adult PWH on ART, speaking French or English, owning a smartphone, willing to use the patient portal, with a history of adherence issues.

Intervention/Instrument: Patients completed the I-Score on the patient portal up to two days before visits with their physician at Baseline (T1), 3 months (T2), and 6 months (T3). We collected patients' sociodemographic information at T1, and HIV viral loads at T1 and T3. At each visit, patients reported ART adherence, and physicians completed a checklist of actions undertaken based on I-Score results.

Outcome Measures: Patient outcomes at T1 and T3, included HIV viral load undetectability, mean scores for self-reported adherence (score of 1 to 5) and adherence barriers (score of 1 to 10) over the past

month. For service outcomes, we report frequencies and proportions of clinical visits where physicians took actions based on I-Score results.

Results: Out of 26/32 participants who completed the intervention, 11/26 (42%) were female; 14/26 (54%) aged  $\geq$  50 years; and 8/26 (31%) had an income below \$19,999. Most patients (23/26) had an undetectable viral load at T1 and T3. Concerning domains of adherence barriers, mean scores decreased for: Thoughts/Feelings (T1=2.9/10 to T3=2.3/10), Habits/Activities (1.8;1.7), Medication (2.1;1.5), and Health (2.0;1.3), but increased for: Social (2.5;2.9) and Economic Situation (2.4;2.6), and Care (1.3;1.4). Average self-reported adherence increased from T1 (4.11) to T3 (4.19). Physicians ordered new tests for 10/26 (38%) patients, changed the medication plan of 7/26 (27%) patients, and referred14/26 (54%) patients to a specialist.

Conclusions: Administering the I-Score on a patient portal is feasible and appears to improve patient and service outcomes, yet with slight fluctuations. Further research is recommended for a more robust understanding of its efficacy.

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