

# Re-initiation of antiretroviral therapy (ART) following treatment interruption among HIV-positive people who inject drugs (PWID)

Small W. <sup>1,2</sup>, McNeil R. <sup>1,2</sup>, Milloy M-J <sup>1,3</sup>, Maher L. <sup>1,4</sup> & Kerr T. <sup>1,3</sup>

1. BC Centre for Excellence in HIV/AIDS, St. Paul's Hospital, Vancouver; 2. Faculty of Health Sciences, Simon Fraser University, Burnaby, BC; 3. Department of Medicine, University of British Columbia, Vancouver; 4. Kirby Institute of Infection and Immunity, University of New South Wales

## Background

- HIV-positive people who inject drugs (PWID) often experience interruptions in antiretroviral therapy (ART), contributing to poor treatment outcomes among this population.
- Timely ART re-initiation is critical to reducing HIV-associated morbidity and mortality, and ensuring retention in the HIV cascade of care pursuant to Treatment as Prevention's goal of achieving viral suppression and maximizing the preventive potential of ART.
- There is a lack of research focused on ART re-initiation among PWID, including examination of the experiences of PWID who have resumed ART.
- This ethno-epidemiological study examines influences on ART re-initiation among PWID in a setting with a community-wide TasP initiative (Vancouver, Canada).

## Methods

- Through a linkage between provincial pharmacy records and a prospective cohort comprised of HIV-positive people who use drugs (the AIDS Care Cohort to Evaluate Access to Survival Services, ACCESS), we recruited 39 participants who experienced ART interruptions (defined as  $\geq 30$  days without refilling an ART prescription) within the previous two years to participate in semi-structured qualitative interviews focusing on HIV treatment experiences, including ART re-initiation.
- Focusing on a sub-sample of 24 PWID who had resumed ART, we employed a deductive and inductive analytical approach to better understand circumstances surrounding re-initiation.

## Results

### Self-directed patient-led and physician-led efforts to re-initiate ART

While concerns regarding health-related impacts of ART interruptions (e.g., HIV disease progression, hospitalisation, death) led some participants to re-initiate treatment, others resumed ART therapy as a result of efforts by a physician or a nurse, including outreach activities.

*I knew my counts were high [elevated viral load] and my bones were spazzing all the time ....and like I just wasn't well ...so I started them [ART medications] again. [Participant #23, White Woman, 44 years old]*

*So if Dr. X hadn't of come to my apartment and suggested that I started doing them again [taking ART medications] then I probably would have died. They were going through dormant files checking to see why these patients weren't accessing health care and they came across mine. She said she was shocked to see that my [CD4] cell count was less than ten and I was receiving no health care whatsoever. And so she took it upon herself to come to my place and find out what was going on. [Participant #1, Indigenous Transgender Person, 49 years old]*

### ART re-initiation in institutional settings and altered circumstances

Numerous participants re-initiated ART during periods of hospitalization, or incarceration in an isolated incident, indicating that availability of health care resources and staff (e.g., physicians and nurses) in these institutions facilitated re-initiation.

Re-initiation of ART following interruptions sometimes stemmed from increased stability in participants' lives, due obtaining housing or reduced drug use, which was reported to lessen potential for non-adherence.

### Addressing barriers to adherence at the time of re-initiation

Re-initiation of ART often involved efforts to address forces driving treatment interruptions, and managing these obstacles was important for participants' willingness to begin ART again. These efforts included changing to different ART regimens with simpler dosing requirements and/or fewer side effects, and altering dispensing arrangements to receive medications daily, observed therapy, and co-dispensation of ART with methadone.

For example, daily observed pharmacy-based dispensing at re-initiation was adopted to overcome adherence problems, and switching to a simpler once-a-day regimen after re-initiation was reported to facilitate greater adherence:

*There were times when I quit taking it [ART]... either because I was homeless or because I kept losing them. So after all that, I decided the only way I'm gonna get better and I'm gonna stick to taking these pills is if I take them from the pharmacy [daily pickup]. [Participant #8, Indigenous Woman, 42 years old]*

*[When I re-started] it was changed [new ART medication], I guess because they thought it wasn't working. Now it's a once a day thing [single daily dose regimen] ...but being twice a day [previously], it was more room to forget. [Participant #20, White Man, 48 years old]*

For some participants, re-initiation also entailed a change to co-dispensation of ART along with existing methadone prescriptions, rather than the two medications being dispensed separately:

*Then the doctor put me back on the cocktail [ART medications]. I was taking [methadone] everyday...so I thought I might as well start taking them [ART] when I take my methadone because I couldn't remember taking them [HIV medications] everyday. [Participant # 5 Asian Man, 43 years old]*

## Conclusions

- Our findings illustrate how extra-individual forces influence ART re-initiation among PWID, thereby demonstrating the need for structural and programmatic interventions (e.g., housing, maximally assisted therapy, ART co-dispensation with methadone) with the potential to promote timely re-initiation of ART.
- In addition, enhanced supports and outreach for PWID experiencing repeated ART interruptions may help promote retention in HIV care and viral suppression, consistent with differentiated HIV care models.
- It is important to capitalize upon the opportunity to address barriers to adherence as ART is re-initiated, and the process may provide an opportunity to optimize HIV care to minimize future treatment interruptions and non-adherence.

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Contact: Will Small wsmall@cfenet.ubc.ca

