

Background

Little is known about long-term viral suppression outcomes for patients initiating ART shortly after HIV diagnosis (RAPID ART). We describe demographics and virologic outcomes of the Ward 86 Rapid ART Program for Individuals with an HIV Diagnosis (RAPID) program at San Francisco General Hospital/UCSF.

Methods

- Ward 86 is the largest public health funded HIV clinic in San Francisco; adopted immediate ART in 2013 at the first clinic visit after HIV diagnosis
- Patients were referred from San Francisco testing sites or the hospital to the RAPID Program, offered same or next-day intake appointments, and received same-day ART after evaluation by a multidisciplinary team, with education, support, and insurance enrollment/optimization.
- Provided 3-5-day starter packs and prescriptions of ART, check-in calls, and follow-up appointments within 1-2 weeks.
- Retrospective chart review: demographic characteristics, baseline CD4, and viral loads (VLs) extracted from medical record. Subsequent VLs were obtained from public health surveillance data, regardless of testing site.
- Kaplan-Meier curves summarized distribution of times to 1st virologic suppression. The rate of viral suppression at the last recorded VL was calculated.

Results

- 225 patients referred to Ward 86 RAPID ART Program between July 2013-December 2017; 4 declined immediate ART, 3 not offered immediate ART, 2 were lost to follow-up before the RAPID visit 98% acceptability).
- Of the 216 patients accepting same-day ART, median age 30 years; 7.9% women; 11.6% African American, 26.9% Hispanic, 36.6% white. 51.4% with substance use disorder; 48.1% had major mental health diagnosis; 30.6% unstably housed.
- Median baseline CD4 441 cells/mm³; median VL 37,011 copies/mL.
- Median time from HIV diagnosis to ART start: 7 days; from RAPID intake to ART start: 0 days; from HIV diagnosis to VL <200: 60 days.
- By 1 year, 95.8% had achieved VL suppression to <200 copies/mL at least once.
- At the last recorded VL result, 91.2% of all patients had VL suppression to <200 copies/mL.
- Among patients who initially suppressed, 14.7% experienced one or more episodes of viral rebound, but most (78%) resuppressed to <200 copies/mL.
- The median follow-up time was 1.09 years (0-3.92), and the median number of VL measures for the cohort over the period of follow-up was 4 (1-22).

Table 1: Demographic and Clinical Characteristics of Ward 86 RAPID Program Patients 2013-2017

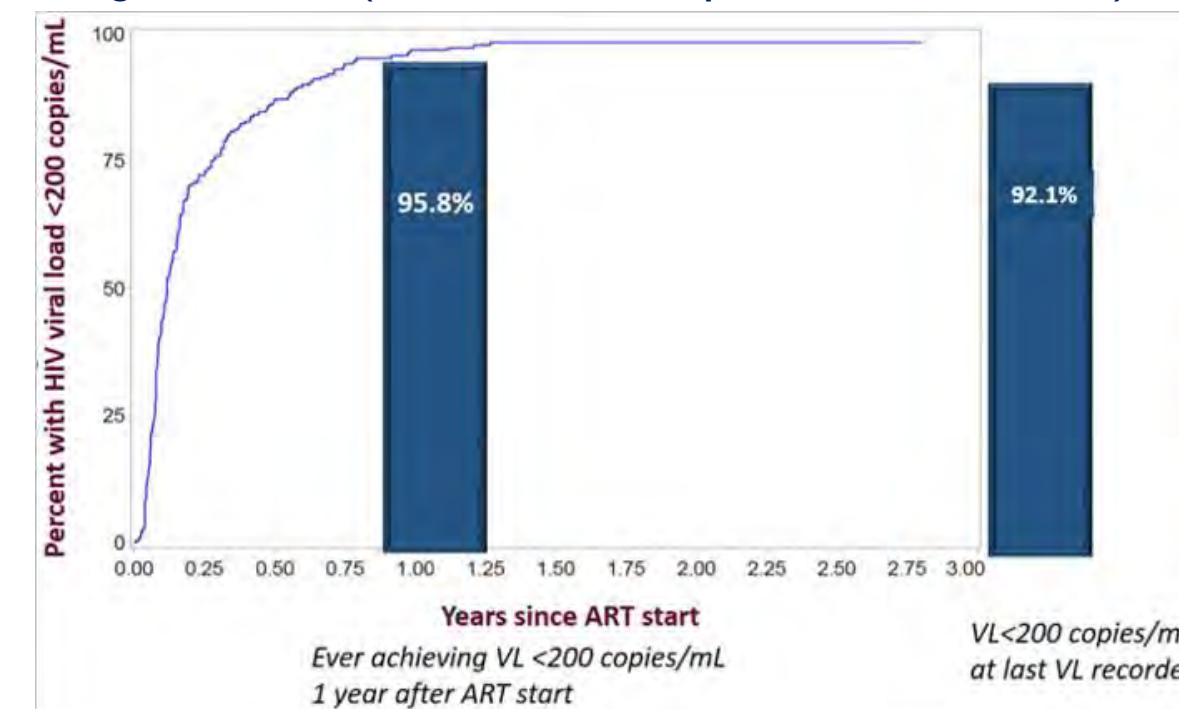
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|--|--------------------------|
| Number | 216 |
| Median age at HIV diagnosis, years (range) | 30.0 (16-61) |
| Sex (gender when available), n (%) | |
| Women | 17 (7.9%) |
| Trans Women | 1 (0.5%) |
| Men | 197 (91.2%) |
| Race/ethnicity, n (%) | |
| AA/black | 25 (11.6%) |
| Latinx/Hispanic | 58 (26.9%) |
| Asian | 27 (12.5%) |
| Native American/Indigenous | 9 (4.2%) |
| White | 79 (36.6%) |
| Other | 11 (5.1%) |
| Substance use, mental health disorder, housing instability, % | |
| Substance use disorder (hazardous stimulant, opioid, or alcohol use) | 51.4% |
| Major mental health disorder | 48.1% |
| Homeless/unstable housing | 30.6% |
| Baseline CD4, HIV RNA (median, range) | |
| CD4, cells/mm ³ | 441 (3 - 1,905) |
| HIV RNA copies/mL | 37,011 (0 - >10 million) |

Results

Table 2: Virologic Outcomes of Ward 86 RAPID Program Patients 2013-2017

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|---|---------------------|
| Follow up time, median (range) | 1.09 years (0-3.92) |
| Time from HIV diagnosis to ART start, median (range) | 7 days (0-249) |
| Time from first RAPID visit to ART start, median (range) | 0 days (0-56) |
| % with VL <200 copies/mL at any time by 1 year of follow-up | 95.8% |
| % with VL <200 copies/mL at last VL measurement | 92.1% |
| % with VL < 50 copies/mL at any time by 1 year of follow-up | 95.1% |
| Time from ART start to VL <200 copies/mL (median) | 41 days |

Figure 1: Time from ART Start to First VL <200 copies/mL in Ward 86 RAPID Program 2013-2017 (and % with VL <200 copies/mL at last VL recorded)



Conclusions

- In an urban safety-net clinic with high rates of mental illness, substance use, and homelessness or unstable housing, immediate ART was highly acceptable and effective.
- ART offered through the RAPID program resulted in high rates of viral suppression over time.
- Key elements of the Ward 86 RAPID program include expertise of the multidisciplinary RAPID care team (RN, NP, social worker, physician), municipal support, collaboration with San Francisco Getting to Zero Consortium, and a citywide focus on access to immediate care.
- Rapid access to sources of health insurance, was possible for most uninsured patients, through Medicaid and/or emergency ADAP.
- Future research will examine longer-term outcomes of RAPID patients, patients' qualitative experiences with RAPID, and parsimonious models.

