The Impact of the COVID-19 Pandemic on Clinical Follow-up, Monitoring and Regimen Discontinuation for People Living with HIV in the US

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Background

- The COVID-19 pandemic has disrupted health care services for people living with HIV (PLWH)
- Decreases in HIV screening,[1] office visits,[2] HIV viral load testing,[2] viral suppression[3] have been reported in the US and around the globe
- Data from an on-going study were used to investigate the impact of COVID-19 on clinical care

Objective

Compare rates of clinical visits, viral load monitoring, and antiretroviral therapy (ART) regimen discontinuation among virally suppressed PLWH in the US before and during the COVID pandemic

Methods

Study Population

- OPERA® Cohort: Prospectively captured, routine clinical data from electronic health records (EHR) in the US (85 clinics, 19 states, 1 US territory)
- Inclusion criteria
  - ART-experienced PLWH
  - ≥18 years of age
  - ≥1 clinical encounter within 2 years prior to 31Oct2020
  - Switched from any ART regimen to dolutegravir/lamivudine (DTG/3TC), or to DTG or bictegravir-based 3-drug regimen between 01May2019 and 30Apr2020
  - Viral load <200 copies/mL at switch

Study periods (Figure 1)

- Pre-COVID: 01May2019 to 28Feb2020
- During COVID: 01Mar2020 to 31Oct2020

Outcomes

- Clinical visits; HIV-related or otherwise (Figure 2)
  - In-person visits: any scheduled or walk-in outpatient, inpatient, emergency, or laboratory visit
  - Telehealth visits: any phone or video encounters
- Viral load (VL) measurements; regardless of result (Figure 3)
- Regimen discontinuation: change in any component of the regimen (Figure 4)
- Virologic failures: 2 VLs ≥200 copies/mL (Table 1)

Statistical analyses

- Incidence rates: univariate Poisson regression

Results

Figure 1. Study population before and during COVID

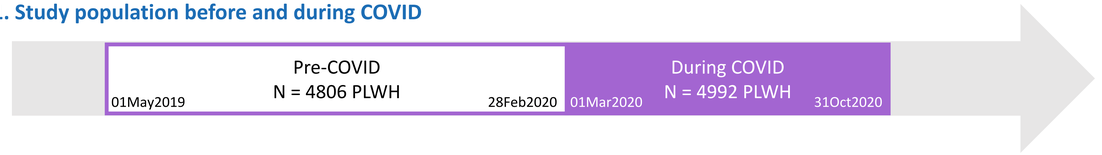
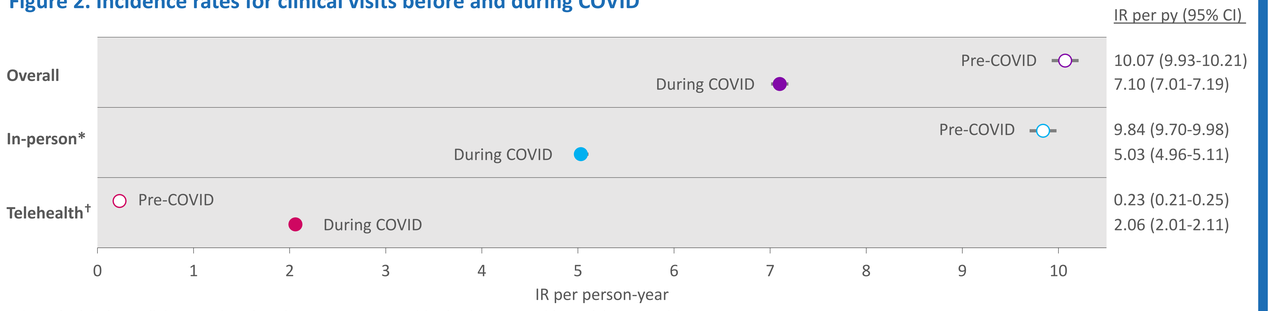


Figure 2. Incidence rates for clinical visits before and during COVID



*Any scheduled or walk-in outpatient, inpatient, or emergency with a healthcare provider, or laboratory visits
†Any telephone encounters, virtual visits, telehealth, and video encounters

Figure 3. Incidence rates for viral load measurements before and during COVID

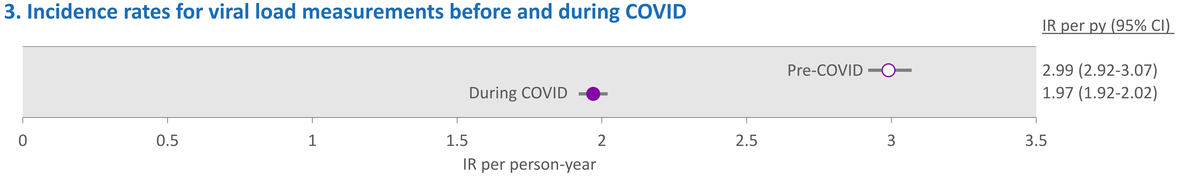


Figure 4. Incidence rates for regimen discontinuation before and during COVID

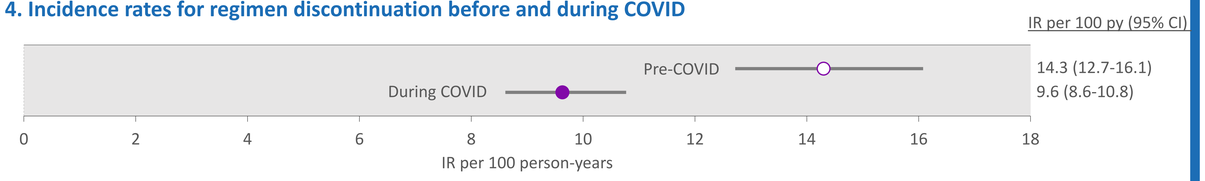


Table 1. Virologic failures before and during COVID

Virologic Failures	Pre-COVID	During COVID
Total virologic failures, n (%)	13 (0.3%)	29 (0.6%)
Incidence rate per 100 person-years (95% CI)	0.67 (0.39-1.15)	0.91 (1.00-1.32)

Discussion

- The COVID-19 pandemic impacted HIV care in several ways among virally suppressed PLWH in the US
  - Reduction in the rates of:
    - Overall & in-person clinical follow-up visits
    - Viral load monitoring
- Reduction in rates of regimen discontinuation
  - Presumably associated with less frequent follow-up
- Increase in telehealth follow-up visits did not offset the decrease of in-person visits
  - Convenient and safe; except for those with limited technology and/or privacy away from the provider's office
  - Reduced access to laboratory monitoring
  - Reduced access to physical assessments including screenings for sexually transmitted infections
- Virologic failures were infrequent in both study periods (<1% of those with ≥1 viral load)
  - Less frequent viral load testing could lead to more failures going undetected
- The long-term impact of the pandemic on HIV care remains uncertain

Key Findings

The COVID pandemic has led to important reductions in rates of in-person follow-up visits and viral load monitoring among virally suppressed PLWH in the US

References

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