BACKGROUND

- HIV pretreatment drug resistance (PDR) is associated with lower viral suppression (VS) and higher death rates1.
- Among antiretroviral treatment-naive patients, resistance to any ART drug in Mexico is 13% and 9% for efavirenz/nevirapine1,2.
- Mexican HIV treatment guidelines do not recommend the use of routine resistance test before treatment initiation3.
- Sociodemographic characteristics and levels of resistance among ART-experienced re-initiators are unknown in Mexico.

We explored longitudinal associations of PDR in patients entering into care with different outcomes such as remaining in care, loss to follow-up (LTFU), VS, and death, which are not well described in Mexico.

METHODS

We analyzed PDR and sociodemographic data from 1623 patients who participated in a nationally representative PDR survey carried out in Mexico from 09/2017 to 03/2018 among patients starting or re-starting ART, with available follow-up data in Mexico’s national ART database (SALVAR: Mexican System of distribution, logistic and ART surveillance).

Participants were stratified into four groups according to prior ART exposure and presence of NNRTI-PDR (documented resistance to efavirenz or nevirapine): experienced+resistant, experienced+non-resistant, naive+resistant and naive+non-resistant.

Outcomes evaluated at the end of the follow-up:

- Proportion of patients remaining in care: Recorded as active patients in SALVAR dataset.
- LTFU: Non-active patients due to: abandonment, change to security social system, unknown.
- VS at end of follow-up: last viral load<200 copies/mL among those with VL available.
- Death.

Statistical analysis:

Socio-demographic characteristic of patients included in each group were described and compared using chi-square and Kruskal Wallis test. We also compared the simple proportion of patients with each outcome between groups. Multivariate models were developed to assess the relationship between ART exposure and NNRTI resistance and retention in care and VS, adjusted by demographics.

RESULTS

- Patients were followed for a median of 233 days (IQR: 167-288), 19% were female, median age was 30 years (IQR: 25-38), and median CD4 count 280 cells/mm³ (IQR: 136-459).
- Compared to other groups, the experienced resistant group had a higher proportion of women (45%), lower education; 44% in elementary or lower level and 78% of unemployed (Table 1).

Among patients entering into care, the group of ART experienced patients, especially those with PDR, showed the worst clinical outcomes compared to ART-naives. This group was enriched with women, persons with lower education, and unemployed individuals, which suggests higher levels of social vulnerability.

REFERENCES


Figure 1. Outcomes at end of follow-up by group

At end of follow-up, active patients who did not die or abandoned clinical care were classified as active. In SALVAR, abandonment is recorded by cause of abandonment. In the right panel, viral suppression recorded as patients with a last viral load under 200 copies/mL.

Figure 2. Adjusted OR for retention in care.

After multivariable correction, experienced+resistant compared to naive+non-resistant patients had significantly lower odds of remaining in care (aOR=0.31, 95%CI: 0.11-0.91).

Figure 3. Adjusted OR for viral suppression.

After multivariable correction, experienced+resistant patients (aOR=0.20, 0.07-0.62) and experienced+non-resistant patients (aOR=0.47; 0.32-0.70) had lower odds of VS compared to naive+non-resistant patients.

CONCLUSION

retention in care, mortality, loss to follow-up and viral suppression among naïve and experienced NNRTI-resistant individuals in a nationwide representative survey in Mexico

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Table 1. Characteristics at time of resistance test by group.

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