

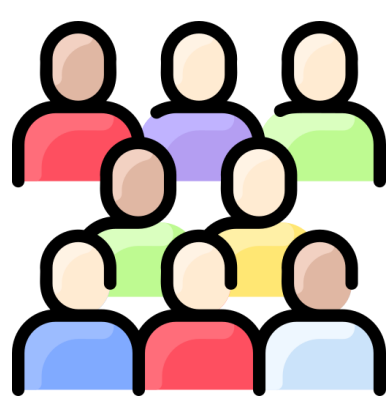
Background

HIV-2 infection is endemic in West Africa, and Portugal has the highest prevalence within Europe. The first line of recommended treatments includes a combination of 2 NRTIs plus an INSTI or a boosted PI. Accumulated scientific evidence on second-generation INSTI treatment efficacy results from *in vitro* or cohort studies.

Materials and Methods

Real-life, retrospective, observational cohort study. Analysis of a cohort of adult patients with chronic HIV-2 infection, under medical follow-up at a tertiary hospital in Lisbon, between 1985 and 2023, who completed at least six months of ART with BIC/FTC/TAF. Demographic, epidemiological, clinical, laboratory, and therapeutic evaluation.

Results



N=19
patients with chronic HIV-2 infection on BIC/TAF/FTC

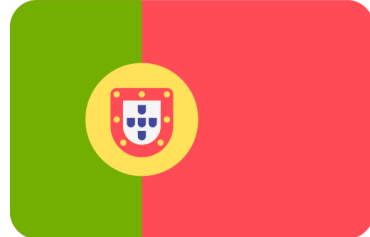
4 (21%) treatment naïve

15 (79%) treatment experienced


12 (63%) women

61,2 years (mean age)

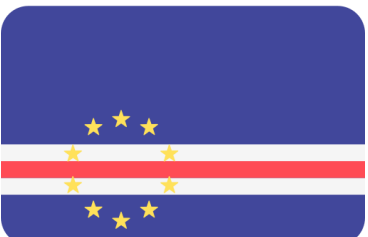
Geographic origin:




8 (42,1%)
Portugal



7 (36,9%)
Guinea-Bissau



2 (10,5%)
Cape Verde



2 (10,5%)
Guinean

Comorbidities

- Chronic Hepatitis B infection: 4 (27%)
- Chronic Hepatitis C infection: 1 (5%)
 - treated, with sustained virologic response
- Arterial hypertension: 10 (53%)
- Diabetes *mellitus*: 3 (16%)
- Dyslipidemia: 11 (58%)
- Chronic kidney disease: 1 (5%)

| Treatment naïve (n=4) | | | | Treatment experienced (n=15) | |
|---|--|--|-----------------------|--|--|
| 2,0 years [1,24] | | Time since diagnosis (median) | | 18 years [3,35] | |
| 15 months [8,27] | | Time on ART (median) | | 11 years [3,27] | |
| A: 4 (100%) | | HIV clinical stage (CDC Atlanta) | | A: 10 (67%) B: 3 (20%) C: 2 (13%) | |
| 581,5 cells/mm ³ [19,1301] | | Baseline TCD4+ count (median) | | 628 cells/mm ³ [156,1094] | |
| <ul style="list-style-type: none">• HIV-2 RNA detection at baseline (mean 7.833 copies/mL): 3 (75%)• Chemotherapy: 1 (25%) | | Reasons to: | | <ul style="list-style-type: none">• ART regimen simplification: 12 (80%)• Prevent drug interactions: 2 (13%)• Virologic failure (resistance mutations): 1 (7%) | |
| | | start ARV therapy | switch to BIC/TAF/FTC | | |
| | | Number of previous regimens (mean) | | 4.0 | |
| 15 months [8,27] | | BIC/TAF/FTC treatment duration (median) | | 26 months [6,32] | |
| +126 cells/mm ³ [-659,407] | | Variation of TCD4+ count since begining BIC/TAF/FTC (median) | | + 28 cells/mm ³ [-139,220] | |
| 597 cells/mm ³ [215,1074] | | Current TCD4+ count (median) | | 637 cells/mm ³ [114,1232] | |
| 4 (100%) | | HIV-2 RNA < 40 cp/mL | | 15 (100%) | |
| Metabolic profile | | | | | |
| At baseline BIC/TAF/TFC >> current (mean) | | | | | |
| 164 mg/dL >> 176 mg/dL | | Total cholesterol | | 205 mg/dL >> 194 mg/dL | |
| 98 mg/dL >> 112 mg/dL | | LDL cholesterol | | 129 mg/dL >> 122 mg/dL | |
| 43 mg/dL >> 50 mg/dL | | HDL cholesterol | | 60 mg/dL >> 59 mg/dL | |
| 97 mg/dL >> 73 mg/dL | | Triglycerides | | 124 mg/dL >> 84 mg/dL | |

Conclusions

Our results support the use of BIC/FTC/TAF as an efficient treatment option in HIV-2 infection. The majority of patients had long-term HIV-2 infection and were heavily treatment-experienced, with a mean of 4 previous regimens. The regimen demonstrated virological efficacy, immunologic sustained improvement, durability, and tolerability. During the follow-up period, the impact on the metabolic profile was neutral.

References: 1- Kapoor AK, Padival S. HIV-2 Infection. [Updated 2022 Sep 20]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK572083/>. 2 - Berzow D, Descamps D, Obermeier M, et al. Human Immunodeficiency Virus-2 (HIV-2): A Summary of the Present Standard of Care and Treatment Options for Individuals Living with HIV-2 in Western Europe. Clin Infect Dis. 2021;72(3):503-509. doi:10.1093/cid/ciaa275

