

## BACKGROUND

- Recent data on the prevalence of human immunodeficiency virus (HIV) and hepatitis B virus (HBV) coinfection in Europe are scarce.<sup>1,2</sup>
- The aim of this study was to assess the seroprevalence of HBV in HIV-coinfected patients, as well as to characterize these individuals according to their current status regarding HBV (HBV DNA and treatment) and HIV (HIV RNA and treatment), grade of fibrosis, and presence of hepatitis C (HCV) and hepatitis Delta virus (HDV).

## METHODS

- Cross-sectional study
- Five Portuguese centres

### Sample characteristics:

- 146 HIV/HBV coinfecting patients in a population of 8415 HIV infected individuals, with at least one Infectious Diseases appointment during a one-year period, in 2023.

## RESULTS (1)

### HBV prevalence – 1.73% in HIV infected patients

**77.4%**  
male

Age (average)  
**51.7 years**  
(range 23 - 86)

**HIV**  
**13.3 years**  
Time since diagnosis (average)

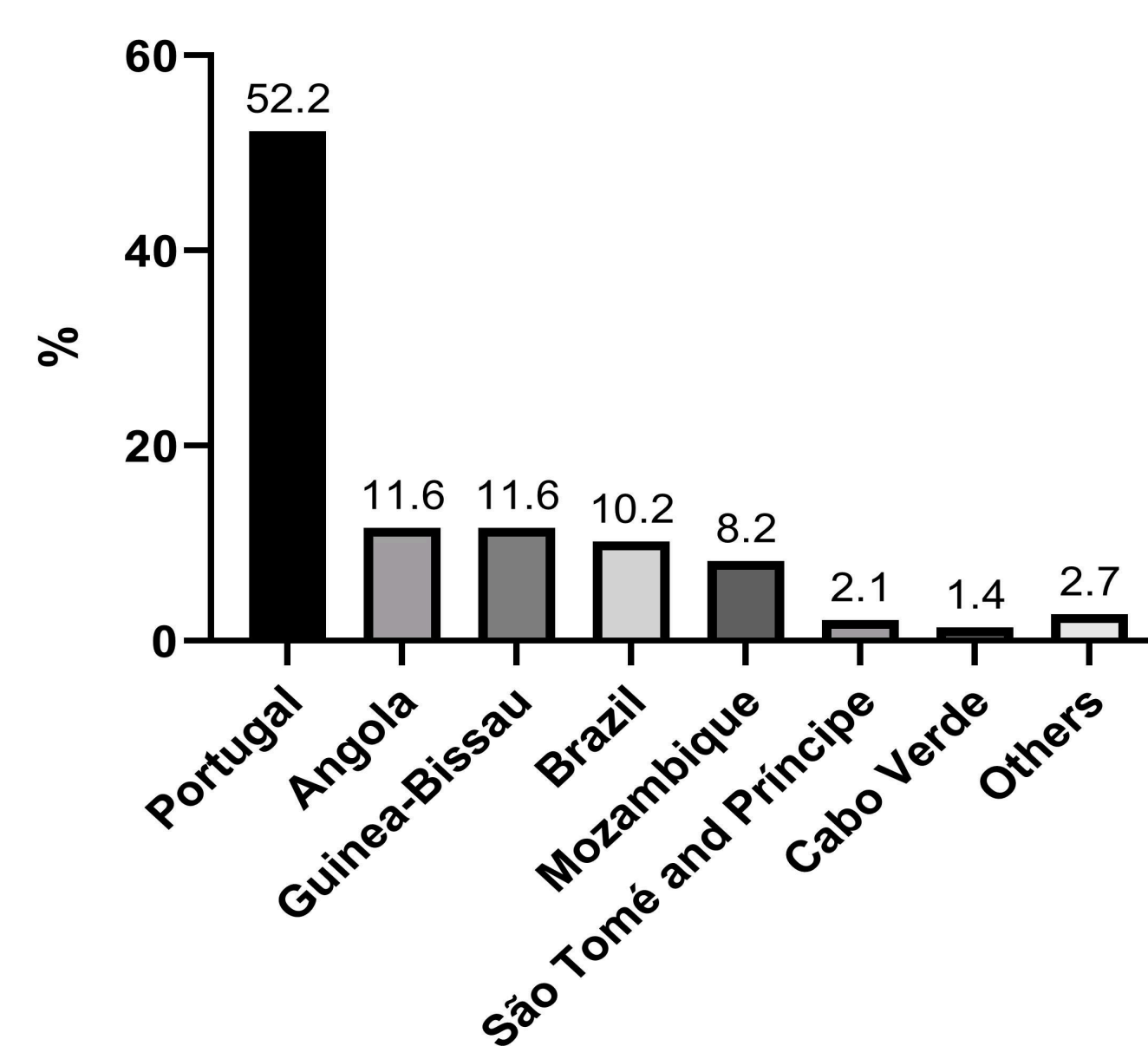
**HBV**  
**10.9 years**  
Time since diagnosis (average)



## RESULTS (2)

- HIV was transmitted through sexual contact in 83.5% of cases (42.4% through heterosexual contact and 41.1% among men who have sex with men), followed by intravenous drug use (6.2%), vertical transmission (5.5%), and blood transfusion (4.8%).
- The average baseline CD4+ T-cell count was 306.8 cells/mm<sup>3</sup> (SD ± 249.4), with 39.0% of patients having a CD4+ count below 200 cells/mm<sup>3</sup> (range: 1–1,381 cells/mm<sup>3</sup>). The average baseline HIV viral load was 342.4 copies/mL (SD ± 616.3; range: 53–4,016,076 copies/mL).
- The most recent average CD4+ T-cell count was 572.7 cells/mm<sup>3</sup> (SD ± 308.7), with 13.0% of patients having a CD4+ count below 200 cells/mm<sup>3</sup> (range: 8–1,486 cells/mm<sup>3</sup>).
- Of the total, 85.6% remain virally suppressed. ART regimens included two NRTIs plus: an integrase strand transfer inhibitor in 55.5% of patients; a NNRTI in 22%; and a protease inhibitor in 10.3%. Other ART regimens were used in 12.3% of patients.

### Country of origin



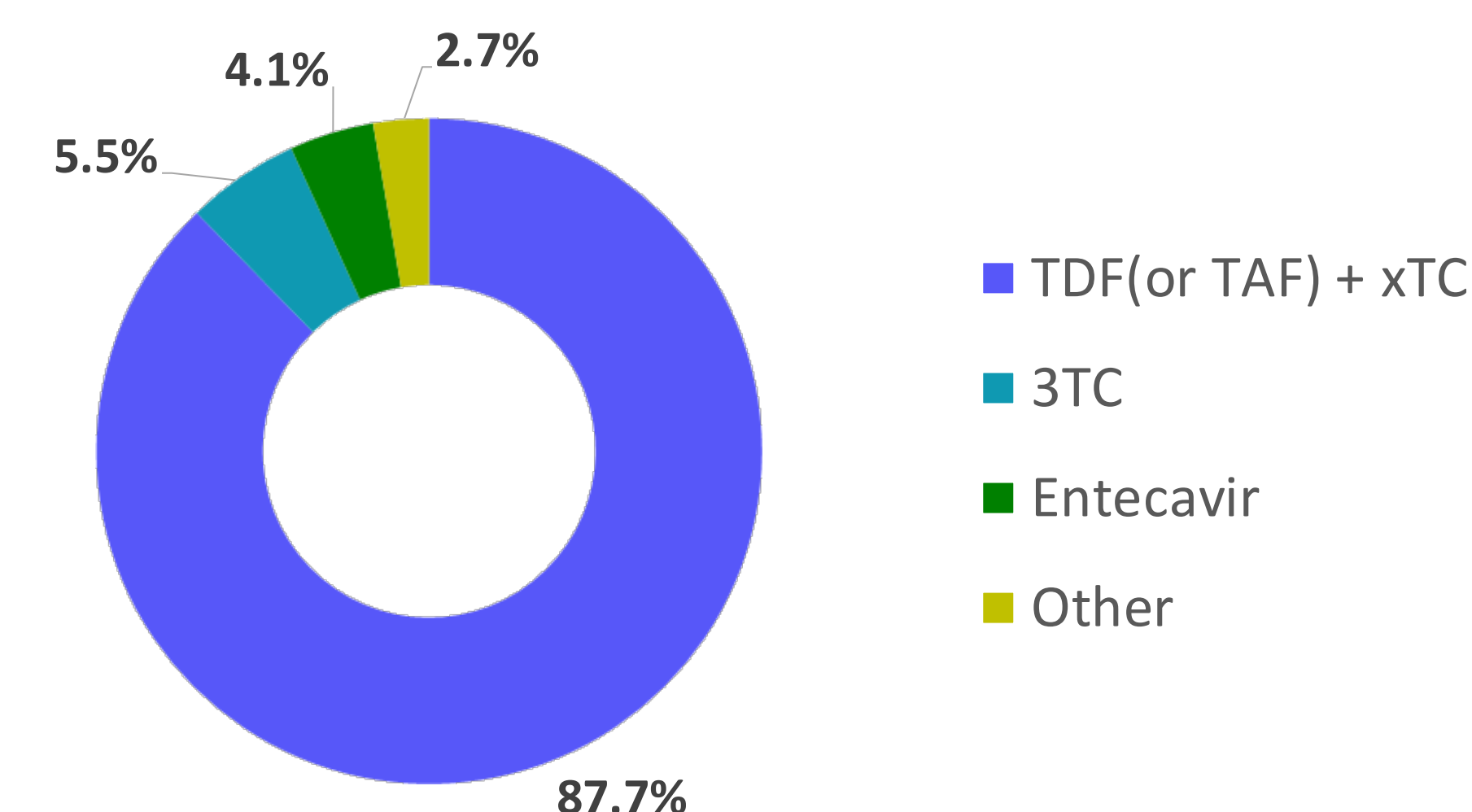
Distribution of HIV/HBV coinfecting patients by country of origin

- HBeAg was positive in 41.4% of patients, and HBsAg loss occurred in 7.5% over the years. Regarding the most recent results, an HBV DNA load of <10 IU/mL was observed in 71.9% of patients.

## RESULTS (3)

- At the time of HBV diagnosis, ultrasound-based transient hepatic elastography showed an average stiffness of 5.9 kPa (SD ± 3.9). The most recent values averaged 7.2 kPa (SD ± 10.2). During the most recent evaluation, cirrhosis was evident in 10.3% of patients.
- Of the total patients, 8.9% tested positive for anti-HDV antibodies, with 30.7% of these having detectable HDV RNA.
- Triple infection (HIV/HBV/HCV) was present in 12.3% of patients, while 6.1% had a quadruple coinfection (HIV/HBV/HDV/HCV).

### Current therapy for HBV



TDF = tenofovir disoproxil fumarate; TAF = tenofovir alafenamide; xTC = either 3TC (lamivudine) or FTC (emtricitabine)

## CONCLUSIONS

- Based on this sample, the prevalence of HIV/HBV coinfection in Portugal is 1.73%, and HDV antibodies were detected in 8.9% of HBsAg+ individuals.
- Almost half are individuals originally from Portuguese-speaking countries.
- National programmes to control HBV, primarily in the migrant population, need to be improved.
- This study has some limitations, as estimates point to a higher prevalence of HIV/HBV coinfection in the south of the country, and only one centre from this region was represented.

## REFERENCES

- Corcoran MA, Kim N. Chronic hepatitis B and HIV coinfection. *Top Antivir Med.* 2023 Mar 31;31(1):14-22. PMID: 37018732; PMCID: PMC10089291
- Sofie Hallager, Andreas Lundh, Steen Ladelund, et al. The Prevalence of Human Immunodeficiency Virus Coinfection Among Patients Newly Diagnosed With Chronic Hepatitis B or C in Denmark: A Nationwide Cohort Study, *Open Forum Infectious Diseases*, Volume 5, Issue 12, December 2018, <https://doi.org/10.1093/ofid/ofy310>