

Study of the Cardiovascular Disease Risk in People Living with HIV-1 in Portugal

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Background

With more effective and widespread treatment of human immunodeficiency virus (HIV), morbidity and mortality from non-AIDS-related events have surpassed those from AIDS-related events.

Cardiovascular disease (CVD) has emerged as an important cause of death in people living with HIV. HIV infection is associated with an increased risk of coronary artery disease, heart failure, ischemic stroke, and lower extremity arterial disease beyond that explained by traditional atherosclerotic risk factors.

There are several algorithms and models for calculating cardiovascular risk. The model recommended by the European Society of Cardiology (ESC) is the Systematic COronary Risk Evaluation (SCORE). The SCORE algorithm allows predicting the 10-year mortality risk from CVD.



Methods

Multicenter, cross-sectional, observational study of PLHIV, aged between 40 to 70 years, who attended a routine visit at one of seven hospital centers between September 2019 and March 2020.

Clinical and laboratorial data were collected to determine each patient's 10-year risk of CVD mortality.

The main outcome is the percentage of PLHIV in each risk category defined in the 2019 European Society of Cardiology/ European Atherosclerosis Society guidelines for the management of dyslipidemias.

Objective

The aim of this study is to characterize the risk for CVD mortality in adult people living with HIV-1 (PLHIV) in mainland Portugal.

Results

Overall, 566 PLHIV were included, of whom 69.6% are male. The mean age of the study population is 51.6±7.4 years, and 56.4% of patients are ≥50 years old. Viral load was undetectable (<50 copies/mL) in 533/563 (94.7%) patients.

Established CVD was present in 81 (14.3%) patients. Figure 1 illustrates the distribution of patients' CVD risk.

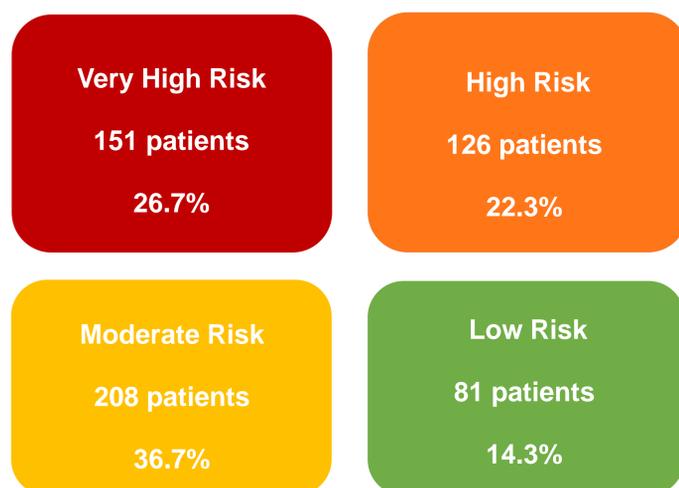


Fig. 1. Patients' CVD risk distribution.

Among patients ≥50 years old, CVD risk was high or very high in 226 (70.8%).

Variables	n	%	
Gender	Male	395	69.6%
	Female	171	30.4%
Viral load undetectable (<50 copies/mL)	533	94.7% (in 563)	
		Mean	SD
Age (years)		51.6	7.4
HIV Diagnosis (years)		13.6	7.2
		%	
CVD risk factors	Current smokers		50.2%
	Overweight or obese		49.0%
	Hypercholesterolemia		47.2%
	Abdominal obesity		35.2%
	Hypertension		27.6%
	Diabetes mellitus		9.0%

Table 1. Sociodemographic and clinical characteristics of the patients.

Conclusions

In this unique multicenter observational study of PLHIV in Portugal, aged 40 to 70 years, CVD risk was either high or very high in 49%.

This result highlights the importance of routinely evaluating and addressing CVD risk in PLHIV.

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