

# Impact of the COVID-19 pandemic on the diagnosis of late presenters of HIV-infected patients at a tertiary hospital in Lisbon, Portugal in 2018 to 2021

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According to the 2020 Portuguese annual HIV report, 778 new HIV infection diagnoses were made in 2019. Of those, 49,7% patients were diagnosed as late presenters and 15,0% were diagnosed with an AIDS-defining disease. Late presenters were mainly heterosexual men (67,3%) with >50 years old (68,1%). In Europe, late presenters were associated with, on average, a 9-fold higher incidence of AIDS events within 1 year of HIV diagnosis, compared to non-late presenters.

The impact on individual and collective health, as well as transmission routes, is concerning and must be addressed.

**Materials and Methods:** This is a retrospective observational cohort study conducted in a Portuguese tertiary hospital, that analysed patients diagnosed with HIV between 2018-2021, and were late presenters. Late presenters were defined as TCD4+ lymphocytes <350cel/mm<sup>3</sup> or an AIDS-defining condition. The information was collected by consulting the patients' clinical records. Statistical analysis was performed using Microsoft Excel Office 365®.

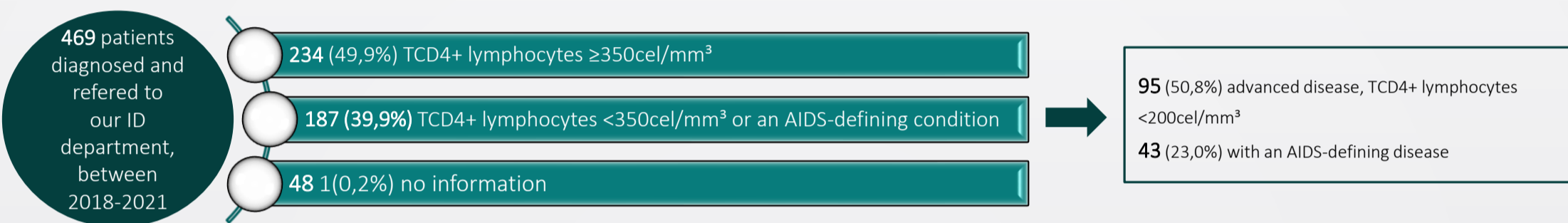


Table 1. Patients' characteristics at diagnosis

	Late Presenters n=187	Non-Late Presenters n=234	Total n=421
Average age, years [extremes]	44,0 [21;79]	37,6 [21;78]	39,9 [21;79]
Male gender, n (%)	132 (70,6)	192 (82,1)	324 (77,0)
Nationality (3 most common) n (%)	Portugal 71 (38,0) Brazil 40 (21,4) Guinea-Bissau 32 (17,1)	Portugal 99 (42,3) Brazil 70 (29,9) Guinea-Bissau 17 (7,3)	
Transmission route, n (%)			
MSM	73 (39,0)	142 (60,9)	215 (51,1)
MSW	82 (43,9)	59 (25,3)	141 (33,5)
IDU	1 (0,5)	3 (1,3)	4 (1,0)
Unknown	31 (16,6)	29 (12,4)	60 (14,2)
Co-infection, n (%)			
HBV	14 (7,5)	7 (3,0)	21 (5,0)
HCV	9 (4,8)	13 (5,6)	22 (5,2)

Figure 1. Reasons for diagnosis in Late Presenters  
N=187

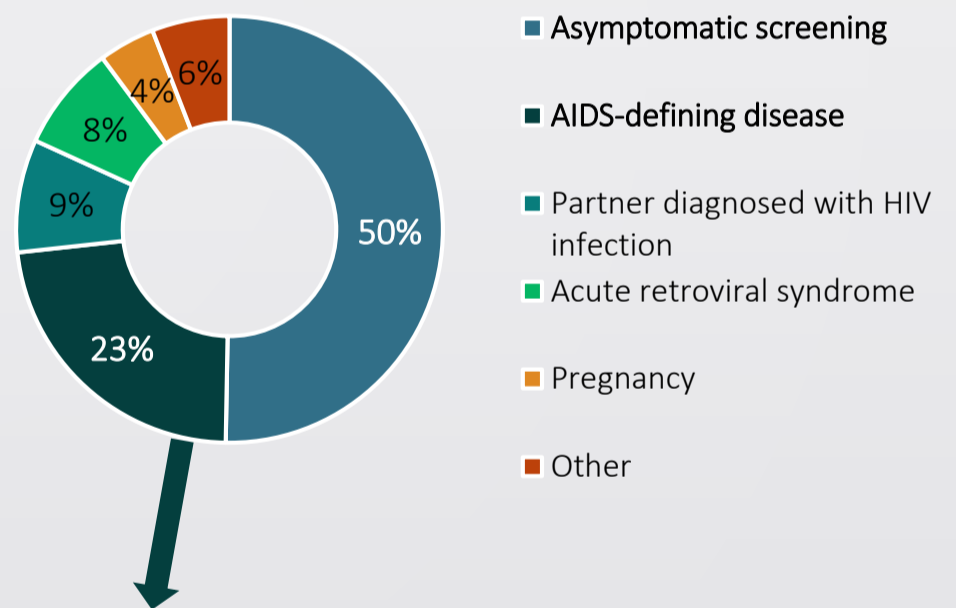
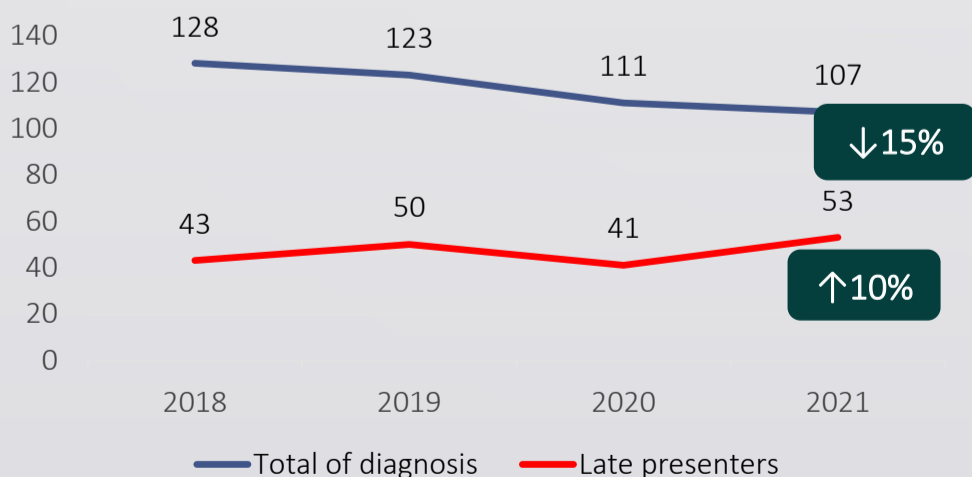


Figure 2. Number of patients diagnosed with HIV infection between 2018-2021



AIDS-defining disease	N (%)
Tuberculosis	14 (28,6)
Esophageal candidiasis	9 (18,4)
<i>Pneumocystis jiroveci</i> pneumonia	8 (16,3)
Kaposi Sarcoma	5 (10,2)
CMV infection	4 (8,2)
Cryptococcosis	3 (6,1)
Lymphoma	3 (6,1)
Cryptosporidiosis	1 (2,0)
Cystoisosporiasis	1 (2,0)
Recurrent pneumonia	1 (2,0)

42 patients were hospitalized at diagnosis time due to AIDS-defining diseases.

8 patients died:  
Lymphoma (n=3); CMV infections (n=2); Tuberculosis (n=2); Isosporiasis (n=1).

The analysis of these real-life data from a tertiary centre showed fewer late presenters' diagnosis than expected given the national data (40% vs 50% in 2019). Nonetheless, national data for the years 2020-2021 are not yet available for direct comparison, and an increase of 10% was observed in the number of late diagnoses, which reached 49% in 2021. As expected, late presenters were mostly men and heterosexual (70,6%; 43,9%). Considering the group of non-late presenters, 60,9% were MSM which can be associated with a greater search for health care by this population.

The pandemic years led to a reduction in the number of new diagnoses by 15% and an increase in late presenters. Our outpatient clinic was never closed during the critical years and we continued receiving patients from the community support institutions that also refer patients who come from other countries.