

Late HIV diagnosis in a cohort from Buenos Aires: high mortality and burden of HIV-related disease during the first year

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Background

Late diagnosis of HIV represents a major challenge worldwide, and is associated with a **high burden of HIV-related disease**. In Argentina, 43.8% of new HIV cases are late diagnosis, and **27.2% have advanced HIV disease with a 10% first-year mortality**.

Materials and methods

Retrospective cohort study

Setting: Hospital General de Agudos "Dr. Juan A Fernandez"

Population: people > 16 years of age with new confirmed HIV diagnosis

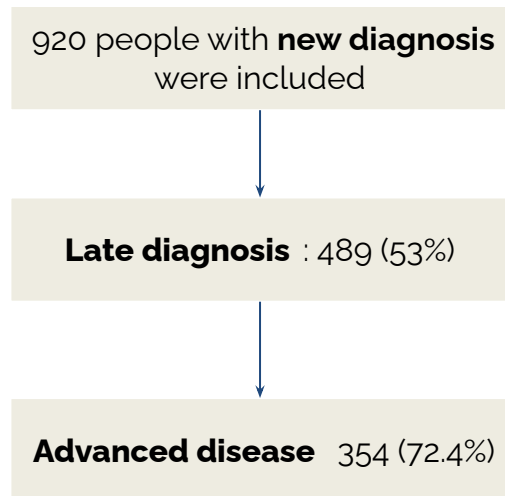
Period: between January 2016 - December 2022

Aim of this study

- Describe the proportion of late diagnosis and advanced HIV disease in a cohort of people with new HIV diagnosis
- Describe demographic characteristics, clinical profile and first-year mortality among people living with HIV in a cohort with late diagnosis

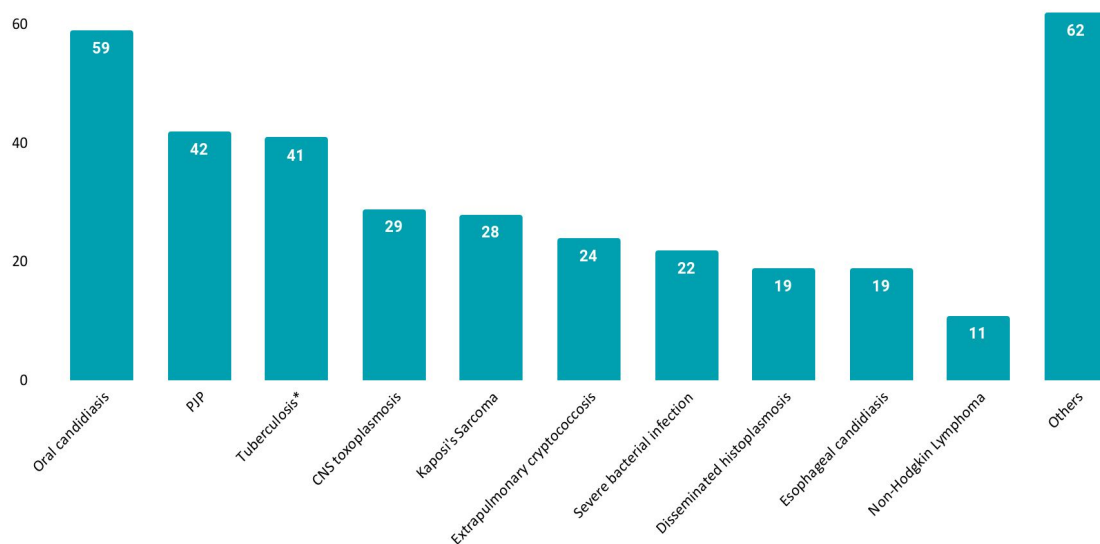
Late diagnosis: CD4 count <350 cells/uL and/or events of WHO clinical stages 3-4
Advanced HIV disease: CD4 count <200 cells/uL and/or events of WHO clinical stages 3-4

Results



| Baseline characteristics of the cohort of people with late diagnosis | N/median (%/Q1-Q3) | | |
|--|----------------------|----------------------------|----------------------------|
| | Total late diagnosis | Advanced HIV disease (AHD) | Late diagnosis without AHD |
| Gender | | | |
| Cis men | 354 (72.4) | 252 (71.2) | 102 (75.5) |
| Cis women | 105 (21.5) | 76 (21.5) | 29 (21.5) |
| Trans men | 1 (0.2) | 1 (0.3) | 0 (0) |
| Trans women | 29 (5.9) | 25 (7) | 4 (3) |
| Age (years) | 35 (28 - 45) | 37 (29 - 46.75) | 31 (25 - 40) |
| Plasma HIV RNA viral load (log10) | 5.03 (4.41 - 5.63) | 5.21 (4.67 - 5.68) | 4.61 (4.03 - 5.13) |
| CD4 count (cell/uL) | 138 (52.25 - 253.5) | 94 (32.87 - 161.5) | 293 (255.25 - 320) |

Frequency of WHO 3-4 clinical events



Notes: * 23 extrapulmonary tuberculosis and 18 pulmonary tuberculosis are included
 PJP: P. jirovecii pneumonia; CNS: central nervous system

Half of the people with late diagnosis (242) experienced WHO clinical stages 3-4 events

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65,3% (158) had 1 event
 26% (63) had 2 events
 8,7% (21) had 3 or more

175 people (35.8%) with late diagnosis had at least one HIV-related hospitalization. Of these, 99% had advanced HIV disease
The overall mortality was 9.2% (45) and HIV-attributable mortality was 6.7% (33)
All deaths were recorded in individuals with advanced HIV disease

Conclusions

In our cohort, the majority of new HIV cases are late diagnosis and **most of them present with advanced HIV disease, exceeding the proportions in national reports**. There is evidence of an **increase in morbidity and mortality** associated with late diagnosis, with one-third of the population having at least one HIV-related hospitalization and a mortality rate close to 10% during the first year. These results highlight the importance of reinforcing strategies for improving timely access to HIV diagnosis and for the appropriate management of advanced HIV disease and its complications