LINKAGE TO CARE AND TIME TO VIRAL SUPPRESSION IN PWH IN SPAIN, 2004-2020

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Belen Alejos[1], Cristina Díez[2], Maria J. Galindo[3], Juan C. López[2], Victoria Hernando[1], Oskar Ayerdi[4], Maria M. Alonso[5], Vicente Estrada[6], Juan A. Pineda[7], Alvaro Mena[8], María Novella Mena[9], David Dalmau[10], Inma Jarrín[1], Juan Berenguer[2], for CoRIS.

[1]Instituto de Salud Carlos III, Majadahonda. [2]Hospital General Universitario Gregorio Marañón, Madrid. [3]Hospital Universitario y Politécnico La Fe, Valencia. [4]Centro Sandoval, Madrid. [5]Hospital Universitario de Canarias, San Cristóbal de La Laguna. [6]Hospital Universitario Clínico San Carlos, Madrid. [7]Hospital Universitario de Valme, Seville. [8]University Hospital of La Coruña, La Coruña. [9]Hospital Universitario Príncipe de Asturias, Madrid. [10]Hospital Universitari Mútua de Terrassa, Terrassa.

BACKGROUND

- For newly diagnosed persons with HIV (PWH), early initiation of ART is essential in reducing morbidity and mortality and decreasing the risk of transmitting HIV.
- We have previously reported the trends in linkage to HIV medical care within one month of HIV diagnosis (LC-1Mo) and viral suppression within three months of HIV diagnosis (VS-3Mo) among PWH in Spain from 2004 to 2018.
- We herein update this information up to 2020.

METHODS

- Longitudinal study based on the Cohort of the Spanish AIDS Research Network (CoRIS).
- VS was defined as ever having an HIV-RNA <200 copies/mL.
- We used logistic regression to assess differences by sex, age, country of birth, transmission category, and baseline CD4+ cell count.

RESULTS

- 14,513 PWH were enrolled in CoRIS in the study period (**Table**).
- Trends for ∆-t from HIV diagnosis to ART initiation and CD4+ counts at ART initiation are shown in **Fig 1.**
- LC-1Mo increased from 41% in 2004 to 83% in 2020 (**Fig 2**).
- VS-3Mo increased from 6% in 2004 to 43% in 2019 with a small decrease to 41% in 2020 (**Fig 2**).
- The percentage of initial ART regimens based on INSTI increased from 3% in 2004 to > 70% from 2016 onwards (**Fig 3**).
- The odds of achieving VS-3Mo was higher among females, among non-Spanish Europeans and Latin Americans compared to native-born Spaniards, and among those older than 50 years. Opposite, the odds of achieving VS- 3Mo was lower among IDU compared to MSM, and those with CD4 counts between 200- 500 cells/uL and CD4 counts >500 cells/uL compared to those with CD4 <200 cells/uL. (**Figure 4**).

Fig 1. Time from HIV DX to ART initiation and CD4+ counts at ART initiation

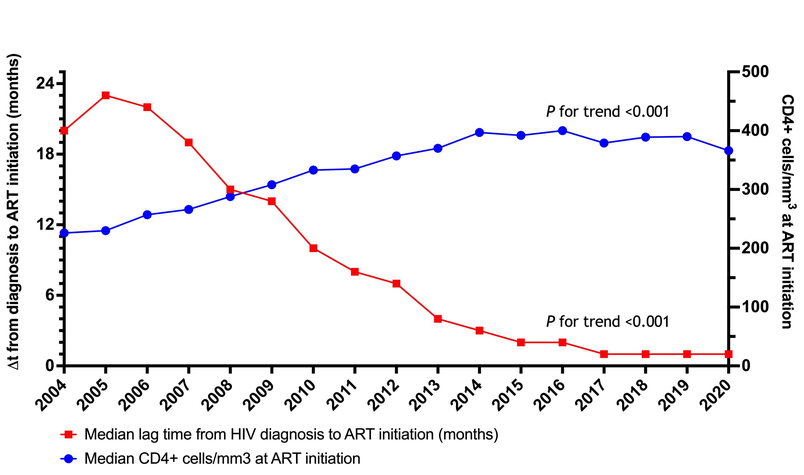
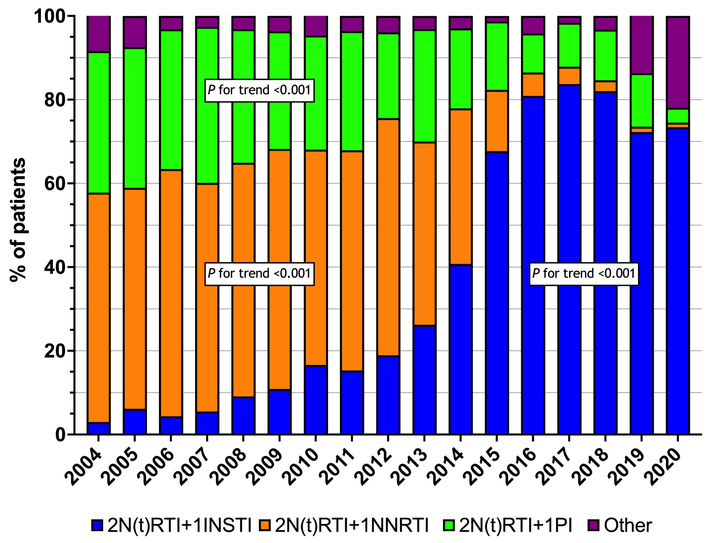


Table. Characteristics of 14,513 PWH enrolled in CoRIS. 2004-2020

Variable	Nº of PWH = 14,513
Age (years); median (IQR)	35 (28; 43)
Males at birth; n (%)	12,338 (85.01)
Region of birth; n (%)	
• Spain	8,312 (57.27)
• Latin America	3,109 (21.42)
• Europe	2,025 (13.95)
• Sub-Saharan Africa	735 (5.06)
• Northern Africa	189 (1.30)
• Other	76 (0.52)
• Unknown	67 (0.46)
HIV transmission mode; n (%)	
• Men sex with men	8,956 (61.71)
• Heterosexual	4,285 (29.53)
• Injection drug use	658 (4.53)
• Other	138 (0.95)
• Unknown	476 (3.28)
CD4+ cells/mm^3; median (IQR)	383 (203; 574)
HIV-RNA load, copies/mL; median (IQR)	63,000 (16,400; 280,767)

Fig 3. Distribution of initial ART regimens during the study period



RECOMMENDATIONS OF ART INITIATION IN SPAIN

- 2004-2012: Symptomatic HIV or CD4 count < 350 cells/uL
- 2013: Symptomatic HIV or CD4 count ≤ 500 cells/uL
- Since 2014: Universal treatment irrespective of the CD4 count

Fig 2. Trends in the two indicators of care from 2004 to 2020

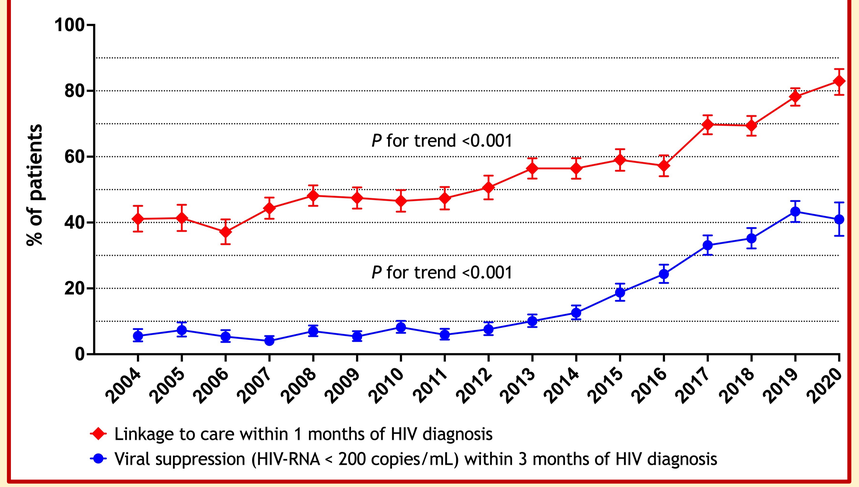
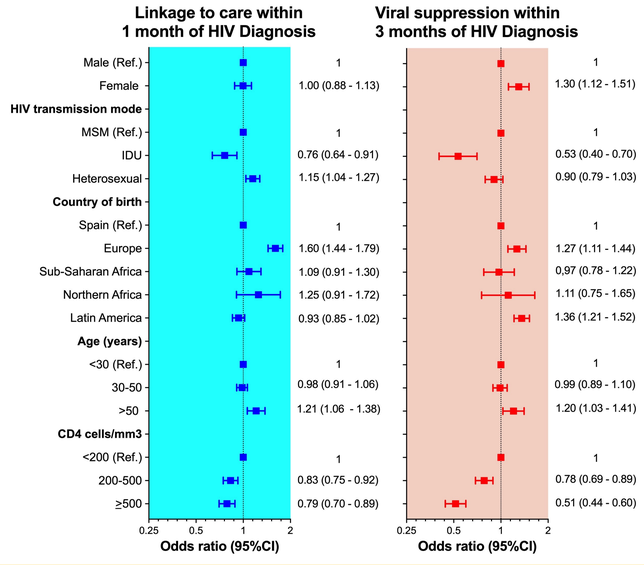


Figure 4. Results from multivariable logistic regression for the association between independent factors and indicators of care.



CONCLUSIONS

- Indicators of care have improved among newly diagnosed PWH in Spain over the last 16 years.
- Elimination of CD4 cell count restrictions for ART initiation and increasing use of INSTI-based regimens was decisive for progress.
- A slight decrease in VS-3Mo in 2020 compared with 2019 was observed, perhaps because of the COVID-19 pandemic.