

## Dettaglio abstract

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**Title:** Impact of COVID-19 in time to linkage to care (LtC) and ART initiation in the ICONA cohort

**Presentation type:** Oral Communication

### Session/Topic

Emerging issues in HIV-1 infection

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### Abstract

**Background and Objectives:** SARS-CoV-2 pandemic heavily affected healthcare systems, potentially altering care for other relevant diseases, including HIV. Our objective was to analyse the trend of time from HIV diagnosis to linkage to care (LtC) and from LtC to ART initiation among people with HIV (PWH) enrolled in the ICONA cohort in 2010-2022, evaluating the impact of COVID-19.

**Methods:** Time to LtC was defined as the time from HIV diagnosis to first CD4, HIV-RNA determination or ICONA enrolment; time to ART was defined as the time from LtC to ART initiation. We consider rapid LtC (rLtC) a period of time  $\leq 14$  days from HIV diagnosis to LtC and rapid ART initiation (rART) a period of time  $\leq 14$  days from LtC to ART start. For PWH diagnosed after 2016 (universal ART), we performed a logistic regression analysis to investigate the association of year of diagnosis with rLtC and rART, adjusting for gender, age, nationality, area of residence, mode of HIV transmission, concurrent STD diagnosis (and CD4 and HIV-RNA at diagnosis for ART initiation).

**Results:** Among 12,310 patients considered, 81.2% were males, 74.7% Italians, 48.4% men-who-have-sex-with-men and 6.3% drug users; 710 (5.8%) with AIDS or acute infection at HIV-diagnosis were excluded in the final analysis. Therefore, among 11,600 PWH analysed, we observed a significant decrease over time to LtC, with less than 40% of PWH linked to care within 14-days in 2010-2012 and more than 65% in the last years (Fig.1A). Among 5,241 PWH diagnosed from 2016 onwards, a progressive increase of rLtC was observed over time up to 2019, slower in the first period of COVID-19 pandemic (Mar-Jun 2020) and recovered in 2022 (Fig.1B).

Similarly, we observed a progressive reduction of time to ART, with less than 30% in 2010-11 starting ART within 30-days from LtC to >90% in the last period (Fig.2A). In the analysis considering the period of universal ART, time to ART was progressively shortened with some fluctuations in 2021, fully recovered in 2022 with the higher chance of rART (aOR=5.26 vs 2016, Fig.2B).

**Conclusions:** A progressive reduction in time to LtC and time to ART initiation was observed over time from the introduction of universal ART. COVID-19 does not appear to have a major impact on LtC except in the period March-June 2020, with no relevant effect on the shortening of time to therapy starting. Monitoring COVID-19 indirect effects on health systems and preparing specific organization plans to reduce the impact of future waves or other pandemics on HIV management remains remarkable. Project partially funded by Minister of Health (ref 4023). Associations involved in the project (in alphabetic order): ANLAIDS, Arcigay, Caritas, CICA, Circolo Mario Mieli, CNCA, Fondazione Villa Maraini, LILA, NPS Italia, PLUS, SIMM.

Fig1. Time to LtC (A) and predictor of rapid-LtC ( $\leq 14$  days from HIV-diagnosis) (B)

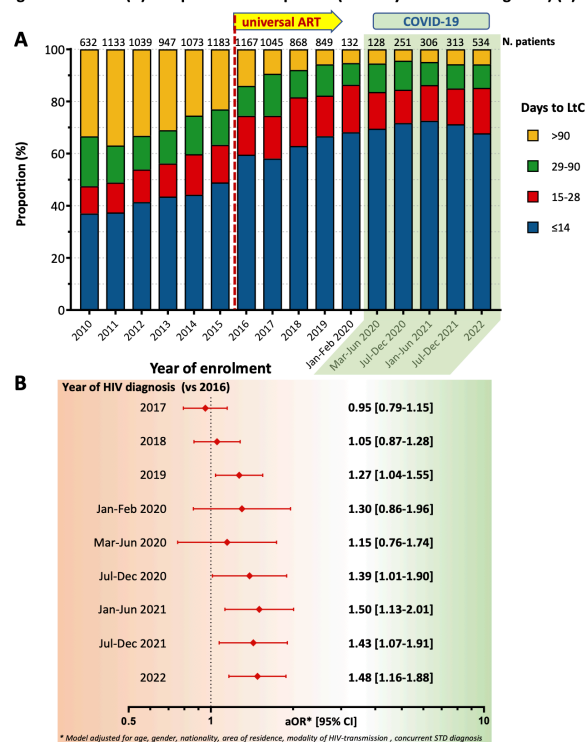


Fig2. Time to ART initiation (A) and predictor of rapid-ART ( $\leq 14$  days from LtC) (B)

