

HIV screening and treatment in two penitentiaries in Northern Italy: a retrospective analysis

A.Cambianica, S.Calza, S.Rapino, M.Inverardi, B.Fioretti, L.A.Visentin, I.Rossetti, F.Roda, F.Castelli, E.Quiros Roldan, E.Focà

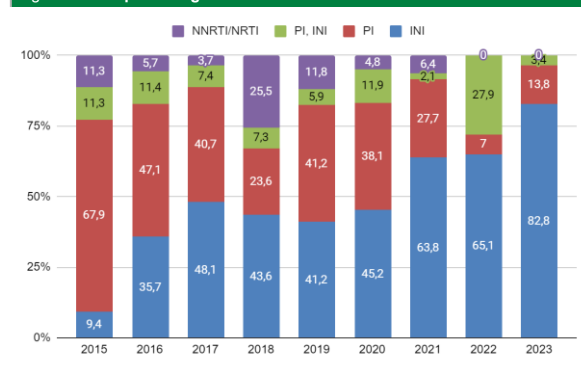
Background

- The prevalence of communicable diseases is higher among people in prison than in the general population.
- International guidelines strongly recommend HIV screening at admission to all people in prison and require that all prisoners living with HIV (PrWHIV) have access to combined antiretroviral therapy (cART).
- However, available data regarding HIV cascade of care in prison settings are insufficient.
- Here, we offer an insight of the management of HIV in two penitentiaries in Brescia, Northern Italy.

Material and methods

- The city of Brescia has two correctional facilities. All prisoners are offered a voluntary screening for HIV, HBV, HCV and syphilis at admission.
- Disease specialists perform periodical in-prison consultation for those with positive results at screening or known HIV infection. Continuity of care is ensured by linking the patients' files to those of the ID Unit.
- Routine immune-virological assays and access to treatment are granted to all PrWHIV.
- We performed a retrospective observational study including all the subjects admitted annually to the penitentiaries from 01/01/2015 to 31/10/2023 who accepted screening and/or had HIV infection. We calculated the screening rate and analyzed viro-immunological and therapeutic information.

Figure 1 Therapeutic regimens



Results

SCREENING

During the study period, we observed a screening rate of 51,9%: screening was performed in 3609 cases out of 6959 registered accesses.

Screening rate decreased considerably in 2020 and 2021 (42,8% and 36,3% respectively), a mild increase was noted in 2023 (49,2%).

ANTIRETROVIRAL THERAPY

Overall, 127 PrWHIV were included, 98 (77%) of which were already followed at our outpatients' clinic.

Adherence to cART improved during the years: only 77% of people took cART during the whole detention in 2015, this number increased to 88% in 2023. People who were not on cART often self suspended or refused therapy (50,0% and 19,0%, respectively). The administration of PI-based regimens was reduced during the years in favor of INSTI-based ones (67,9% and 9,4% in 2015 vs. 13,8% and 82,8% in 2023 respectively).(Fig.1)

VIRO-IMMUNOLOGICAL CONTROL

We observed a steady increase in virological control during the study period: the probability of viral suppression increased from 64% in 2015 to 98% in 2023. (Fig.2)

Immunological control improved as well: the mean level of lymphocyte CD4+ cell count was near to 450 in 2015, closing up to 600 in 2023. However, 8,9% of people had a lymphocyte CD4+ cell count <200/ul during the whole study period. The number of people with insufficient immunological control remained steady during the whole study period. (Fig.3)

NEGLECTED PATIENTS

Notably, 8/127 PrWHIV (6.3%) were never visited by an ID specialist during detention. No information about treatment administration and viro-immunological control was available for them.

These people were usually transferred to other facilities or released soon after admission.

Figure 2 Virological suppression probability

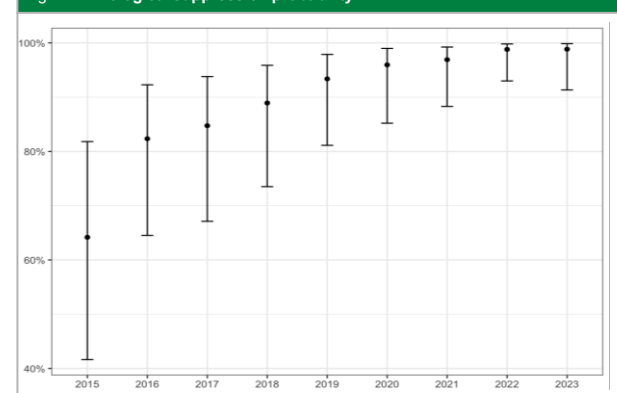
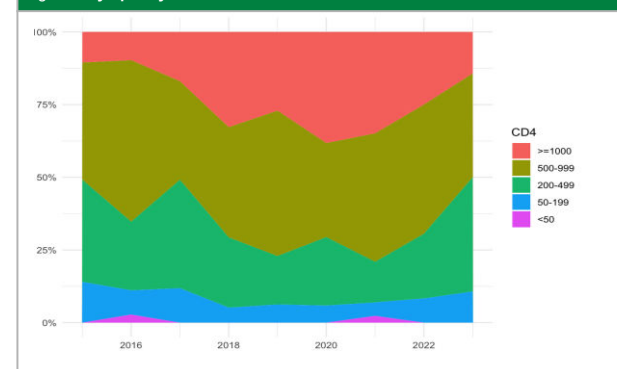


Figure 3 Lymphocytes CD4+ cells/ul



Conclusion

- We observed an increase of adherence to cART through the years, leading to an important increase in viro-immunological control.
- Also, new switches to INSTI-based therapies were observed, guaranteeing updated therapies with less toxicity as happens in out-of-prison outpatients clinics.
- However, HIV screening acceptance is still scarce and some inmates went missing on the follow-up.
- This shows that much more work is needed to offer proper counseling, to prevent new infections between inmates and allocate resources in the best way possible.

References

- Sayyah M, Rahim F, Kayedani GA, Shirbandi K, Saki-Malehi A. Global View of HIV Prevalence in Prisons: A Systematic Review and Meta-Analysis. Iran J Public Heal. 2019;48(2):217-226. <http://ijph.tums.ac.ir>
- Technical Brief Update - HIV prevention, testing, treatment, care and support in prisons and other closed settings: a comprehensive package of interventions. Published online 2020. Accessed February 22, 2024. https://www.unodc.org/documents/hiv-aids/publications/Prisons_and_other_closed_settings/20-06330_HIV_update_eBook.pdf
- Babudieri S, Starnini G, Brunetti B, et al. HIV e infezioni correlate negli Istituti Penitenziari Italiani: note di epidemiologia e di organizzazione sanitaria. Ann Ist Super Sanita. 2003;39(2):251-257. Accessed February 22, 2024. https://www.iss.it/documents/2012/6/955767/392251_1108630839.pdf/f9383d66-01ba-e780-c22f-db95ae270b96?t=1575575992427
- European Centre for Disease Prevention and Control, European Monitoring Centre for Drugs and Drug Addiction. Systematic Review on Active Case Finding of Communicable Diseases in Prison Settings Prevention and Control of Communicable Diseases in Prison Settings. Stockholm: ECDC; 2017.
- WHO Regional Office for Europe. Status Report on Prison Health in the WHO European Region 2022.; 2023. Accessed February 22, 2024. <https://www.quotidianosanita.it/allegati/allegato1676448580.pdf>