

Session: P089 HIV medicine

Category: 1a. HIV/AIDS (incl anti-retroviral drugs, treatment & susceptibility/resistance, diagnostics & epidemiology)25 April 2017, 12:30 - 13:30
P1851**Durable HIV-1 viral load suppression in patients in Croatia in the period 2005 to 2015**Josip Begovac^{*1}, Šime Zekan¹, Davorka Lukas¹, Ivana Božićević², Snjezana Zidovec Lepej³¹*University Hospital of Infectious Diseases, University of Zagreb School of Medicine*²*Who Collaborating Centre for Hiv Surveillance, Andrija Stampar School of Public Health, School of Medicine, University of Zagreb*³*University Hospital for Infectious Diseases "Dr. F. Mihaljevic"*

Background: Croatia has a centralized system of HIV-care and all patients are treated at one centre. The HIV cascade of care uses a single viral load (VL) test per patient to estimate the prevalence of viral suppression. We compared this cross-sectional approach with a longitudinal approach by examining viral suppression in 3 consecutive calendar years in a 11-year period. The evolution of durable viral suppression over time was also examined.

Material/methods: We included persons ≥18 years old, receiving HIV care in the period 2005 to 2015, who resided in Croatia and had at least one VL test in each of 3 consecutive years starting with 2003. Durable viral suppression was defined as all VL values < 400 copies/mL in 3 consecutive calendar years with at least a 2 year-period of being undetectable. Durability of VL suppression in a particular calendar year was determined by the value of VL tests in that year and the previous two years. The cross-sectional data analysed VL tests closest to the end of a calendar year for the same cohort. Results of VL suppression are reported in percentages.

Results: Of 794 persons included in the study, 670 (84.4%) had at least one 3-year period with durable VL suppression and 755 (95.1%) were on antiretroviral therapy (ART) (Table). The cross-sectional data showed substantially higher rates of viral suppression compared to longitudinal data (Figure). However, the difference was less marked in 2015 (11%) compared to 2005 (26%).

Conclusions: Analysing only one VL test overestimated the percent of HIV patients with durable suppressed viral load. The increasing trend in durable viral load suppression is encouraging and indicates usage of potent and better tolerable antiretroviral medications.

Table 1. Durable^a viral load suppression in 794 individuals in care^b in three consecutive years in the period 2005-2015.

	Had durable viral load suppression during follow-up	P-value
--	---	---------

Variables	Yes N=670	No N=124	
Male gender	581 (86.7)	114 (91.9)	0.106
Age at HIV diagnosis, years	35 (29, 44)	32 (27, 39)	0.001
Nadir CD4 cell count per mm ³	148.0 (42.0, 256.0)	303.5 (77.5, 424.5)	<.001
CD4 cell count at inclusion into the cohort per mm ³	475 (321, 674)	572 (338, 768)	0.066
Had an AIDS defining illness	218 (32.5)	21 (16.9)	<.001
Residence outside Zagreb	416 (62.1)	72 (58.1)	0.398
Had gap ^c in care	310 (46.3)	71 (57.3)	0.024

Values are frequencies, percentages or median and Q1, Q3.

^a Continuous viral load suppression for at least 2 years.

^b Had a viral load measurement in each of the three consecutive years.

^c Any 2 viral load tests >12 months apart.

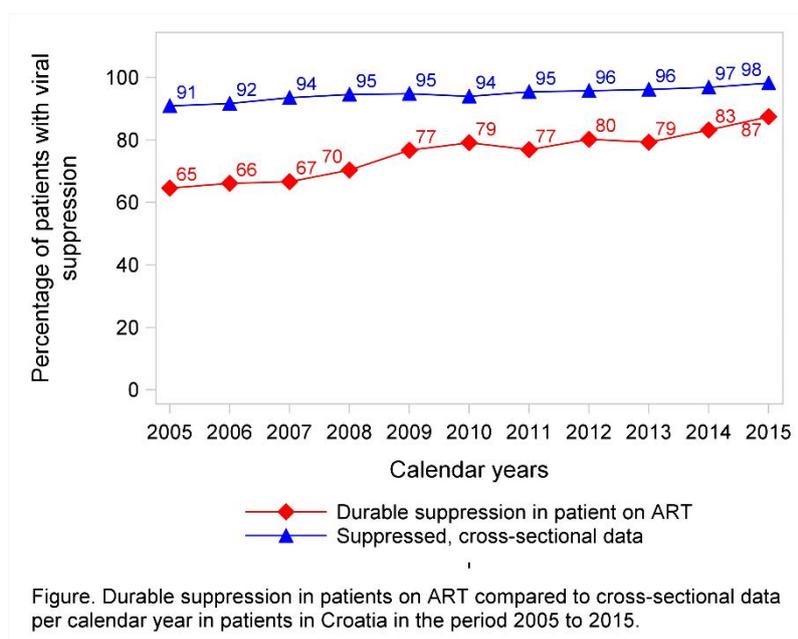


Figure. Durable suppression in patients on ART compared to cross-sectional data per calendar year in patients in Croatia in the period 2005 to 2015.