

Antiretroviral therapy retention times and predictors of retention to care among HIV-infected patients in Ukraine

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Abstract P090

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Background/Objectives

Studying drug retention times and factors associated with engagement in care of HIV-infected patients is essential, because HIV infection requires lifelong treatment. Data regarding retention to care of HIV-positive individuals in Ukraine is scarce. The objective of this study is to assess retention to antiretroviral therapy (ART) care and identify factors associated with complete and incomplete retention in a longitudinal cohort of HIV-infected patients in Ukraine.

Patients and Methods

Retrospective cohort study has been conducted in Poltava, Central Ukraine, of 2303 newly diagnosed HIV-patients >18 years old who entered care and started antiretroviral treatment from 2004 to 2016 and followed at least 12 months. Life quality and factors associated with engagement in care have been evaluated in 90 HIV-infected patients receiving ART. Retention to antiretroviral therapy care has been defined as having at least one visit each 3 months of care throughout the entire follow-up period. Patients who missed two or more HIV clinic appointments during the treatment were considered as unengaged in care. Potential risk factors associated with dropout during treatment have been identified by using multivariate logistic regression models. SPSS version 22.0 was used for statistical analysis.

Results

Proportion of HIV-infected patients being under antiretroviral therapy in the cohort during the observation period was maintained at 66% - 85%. Analysis of ART monitoring has shown that there was a decrease of staying in antiretroviral care among the patients within 2004 – 2016 in Poltava region (from 85% among patients under treatment during 1 year to 66% among patients receiving ART 12 years), and the AIDS-death level in patients receiving ART increased (from 7% among patients receiving ART during 1 years to 20% among patients being under ART during 12 years).

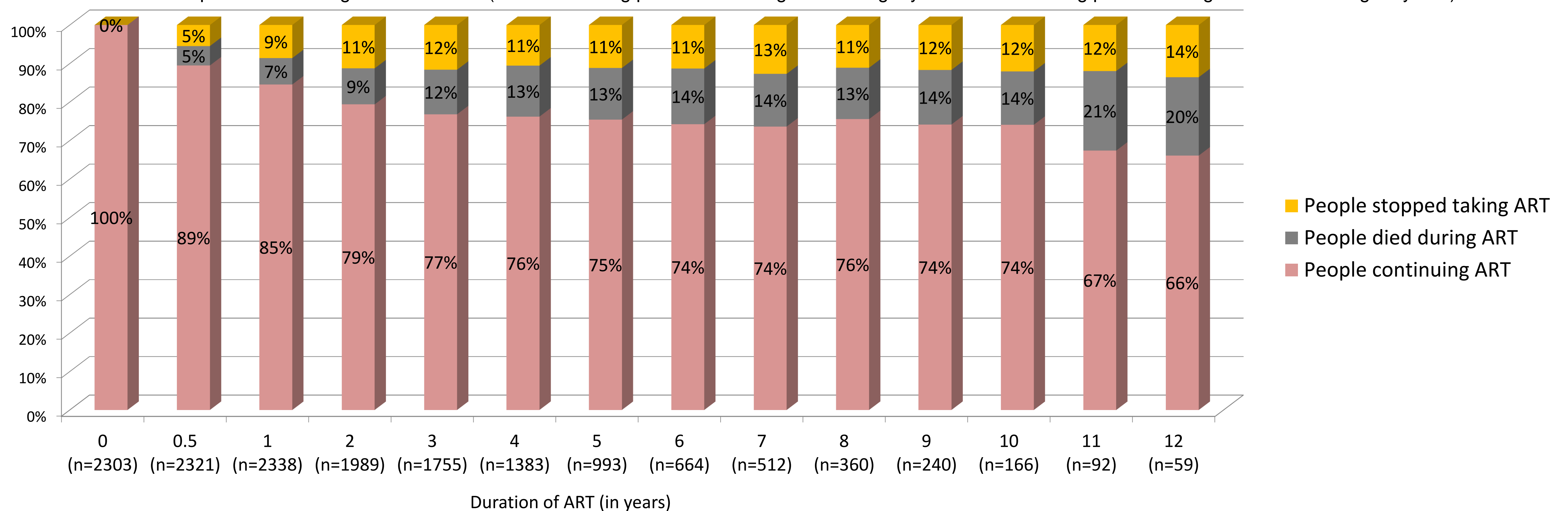


Fig.1. Changing the structure of the cohort, depending on the duration of therapy

Among 1977 patients receiving ART for 12 months, 1691 (85.5 %) continued initial first-line regimen of ART, 254 (12.8%) had at least one switch of ART in same drug class during the study period, and 32 (1.6%) patients developed virological failure and have been switched to second-line regimen of ART.

Among 39 patients under ART for 12 years, only 11 (28.2%) continued initial first-line regimen of ART, 22 (56.4%) had at least one switch of ART in same drug class during the study period, and 6 (15.4%) patients developed virological failure and have been switched to second-line regimen of ART.

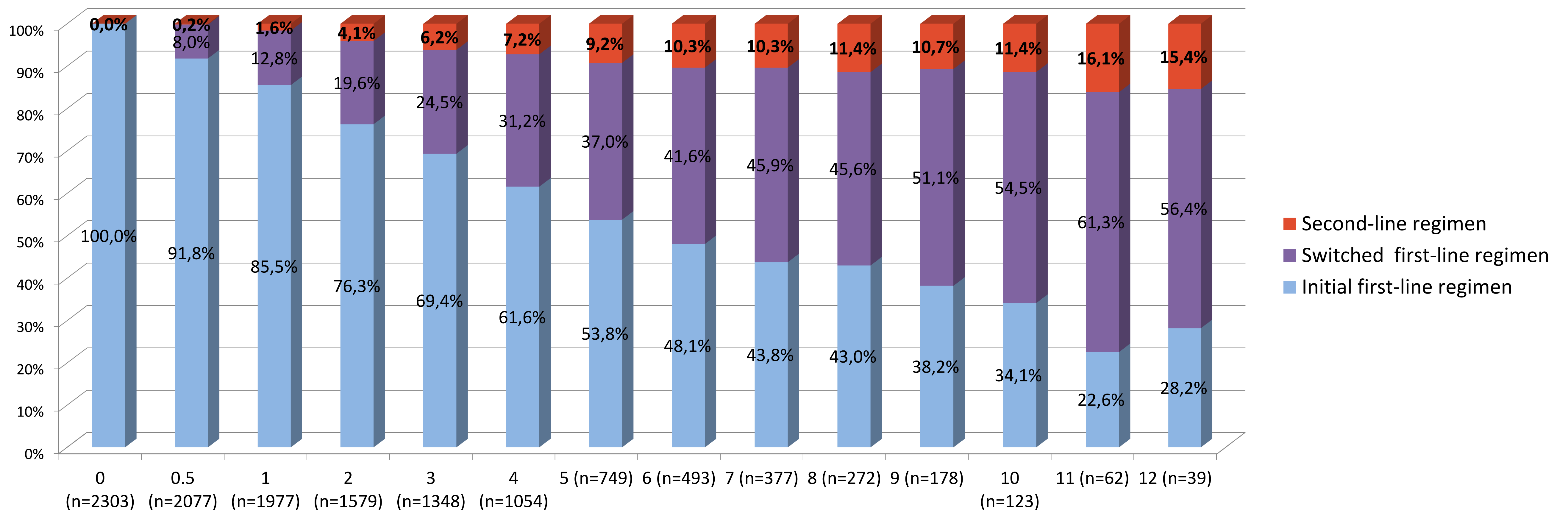


Fig.2. People receiving first- and second-line ART regimens depending on duration of treatment (in years)

Table 1 Life quality in people taking ART

	Patients in care (n=49)	Unengaged patients (n=41)	p
Physical functioning	63,7+26,6	72,5+31,7	0,054
Physical role functioning	44,3+47,4	43,3+45,4	0,979
Bodily pain	56,6+24,7	59,4+28,4	0,533
General health	35,8+17,3	45,3+20,7	0,038
Vitality	43,3+17,5	39,8+18,6	0,591
Social role functioning	61,1+22,5	61,2+24,6	0,993
Emotional role functioning	31,2+42,1	26,5+43,9	0,542
Mental health	45,1+15,8	45,5+17,9	0,852

The average age of the patients, who were assessed for retention to ART care, was 37.0±7.8 years, 40 (66.7 %) of them were male, 43 (47.7%) were people who injects drugs (PWID) and 14 (32.5 %) of them received opioid replacement therapy (ORT), the mean nadir CD4 count was 269 cells/mm³.

Retention in care during ART treatment was best predicted by attending clinic of integrated services with access to ORT (OR=1.1, 95% CI 1.0- 1.1), social support (OR=1.4, 95%CI 1.0- 2.1) and evidence of previous TB treatment (OR=1.2, 95% CI 1.1- 2.8). Engaged patients had significantly better mean life quality scores than unengaged patients in the physical (72.08±21.13 vs 47±23.14, p=0.013) and psychological domains (77.12±13.03 vs 52.22±17.12, p=0.023).

The risk for discontinuing in care was significantly higher in PWID and women who were diagnosed during pregnancy (OR=1.6, 95% CI 1.1- 1.8; OR=1.9, 95% CI 1.5-2.3).

Conclusion. The main factors associated with complete retention to care among HIV-positive patients under ART in Ukraine were good access to integrated services clinics with opioid replacement therapy, social support, high life quality scores in the physical and psychological domains, evidence of previous TB treatment.