

Durability of first-line antiretroviral treatment in Russia: retrospective study

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BACKGROUND:

• Adherence of antiretroviral treatment (ART) durability is important because of life-long nature of the disease. Data on treatment durability in people living with HIV (PLWH) initiating ART in Russia is very limited. Understanding durability of ART is critical for improving HIV management.

MATERIALS AND METHODS:

• A multicenter retrospective study was conducted including data from review of medical records of PLWH who signed informed consent form. PLWH with no experience of therapy at time of initiation of ART with non-nucleoside reverse transcriptase inhibitors (NNRTIs) plus 2 nucleoside reverse transcriptase inhibitors (NRTIs) or ritonavir boosted protease inhibitor (PI) plus 2 NRTIs were followed up for at least 96 weeks according to daily clinical practice conducted by their physicians. Data were retrospectively collected at time points of baseline (pre-treatment), 48±8 and 96±8 weeks after start of ART.

• ART durability was assessed as percentage of PLWH who remained on initial ART without change (switch or withdrawal) and time on therapy measured as the cumulative time in weeks that users were on their initial ART regimen without change.

• Association between ART durability and baseline characteristics (age, gender, marital status, employment status, alcohol and/or substance abuse, duration of HIV diagnosis at baseline, route of infection, HIV stage, viral load, CD4 cells count at baseline, comorbidities, concomitant medications) was assessed. Descriptive statistics and logistic regression analysis were used.

RESULTS:

• 536 PLWH were included in the analysis. Most PLWH were men (59,5%), less than 40 years-old (63,1%), employed (66,2%), without alcohol and/or substance abuse (84,1%), infected via heterosexual contact (56,0%), with HIV stage IV (87,3%). The data on ART durability are presented in a table and a diagram.

• No baseline characteristics were associated with ART change prior to 48 weeks. Only age ≥ 40 years was statistically associated with ART change prior to 96 weeks. (OR=1.391, 95% CI 1.005-1.925).

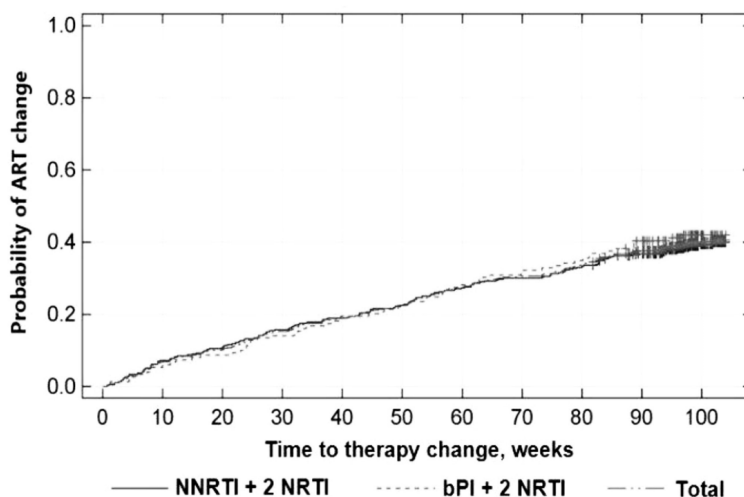
CONCLUSION:

• In real clinical practice in Russia, durability of first-line ART was 76.0% at week 48 and 60.3% at week 96 with mean time on ART 46.8 weeks and 78.8 weeks after therapy initiation, correspondingly. Age ≥ 40 years was associated with ART change at 96 weeks of follow-up. Durability should be investigated further (including later lines of therapy and other classes of drugs) to identify factors associated with early switch or stop of ART.

Durability of ART and time on therapy without ART change

Variables	Subjects on NNRTI plus 2 NRTIs	Subjects on bPI plus 2 NRTIs	All participants
Patients at baseline, n (%)	387 (72.2)	149 (27.8)	536 (100.0)
Durability of ART at 48±8 weeks, % (95% CI for proportion, %)	75.9 (71.3-80.1)	76.4 (68.7-82.9)	76.0 (72.2-79.6)
Time on therapy without ART change at 48±8 weeks of follow-up, weeks, mean (SD)	46.0 (15.0)	47.2 (14.7)	46.8 (15.1)
Durability of ART at 96±8 weeks, % (95% CI for proportion, %)	61.0 (55.9-65.9)	58.4 (50.0-66.4)	60.3 (56.0-64.4)
Time on therapy without ART change at 96±8 weeks of follow-up, weeks, mean (SD)	78.9 (34.2)	75.7 (31.2)	78.8 (33.8)

Durability of ART at 96 weeks*



*+ : Censored data represent PLWH who completed follow-up without ART change