



An Assessment of Prevalence and Predictors of Antiretroviral Medication Non-adherence among HIV/HCV Co-infected Patients in Clinical Care



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BACKGROUND

- Adherence to antiretroviral medication is important for HIV patients to achieve and sustain optimal HIV viral suppression; and this is especially important for HIV patients who are co-infected with hepatitis C virus (HCV).
- Although prevalence and predictors of antiretroviral medication non-adherence has been examined among HIV patients, non-adherence among HIV/HCV co-infected patients has been largely unexamined.

OBJECTIVE

- The objective of this study was to assess prevalence and predictors of antiretroviral medication non-adherence among HIV/HCV co-infected patients who are in clinical care.

METHODS

- We analyzed electronic medical records and patient-reported outcome (PRO) data of HIV/HCV co-infected patients who received antiretroviral therapy at the 1917 Clinic between January 2013 – July 2017.
- Non-adherence was defined as missing 1 or more doses of antiretroviral medication within a 7 day period during the study period.
- Chi-square and the independent samples t-test were used to compare differences between patients who reported non-adherence and adherence during the study period.
- Binomial logistic regression was used to examine predictors of antiretroviral medication non-adherence.

TABLE 1: Bivariate Comparison of Adherent and Non-adherent Patients

Variable	ART Adherent Patients	ART Non-adherent Patients	P-value
N=137	32 (23.4%)	105 (76.6%)	
Age	59.23 (7.90)	54.36 (9.93)	0.008*
Race			0.505
African American	21 (65.6%)	62 (59.0%)	
Non-African	11 (34.4%)	43 (41.0%)	
Genotype 1	10 (25.6%)	29 (74.4%)	0.248
Cirrhosis	6 (18.7%)	25 (23.8%)	0.549
Active Alcohol Use	6 (28.6%)	72 (74.2%)	0.000*
Quantity of Drinks When Drinking	0.57 (1.03)	2.09 (2.02)	0.001*
Active Tobacco Use	14 (45.2%)	66 (63.5%)	0.069
Active Illicit Drug Use	4 (12.9%)	35 (35.9%)	0.019*
Ever Received Treatment for Drug Use	5 (16.7%)	37 (36.6%)	0.043*
Quality of Life	0.81 (0.17)	0.74 (0.18)	0.07

TABLE 2: Independent Predictors of Non-adherence

Variable	Categories	OR	95% CI	P-value
Age		0.956	0.895 – 1.019	0.165
Quantity of Drinks When Drinking		2.390	1.285 – 4.445	0.006*
Active Illicit Drug Use	No	Ref.		
	Yes	2.660	0.661 – 10.697	0.168
Ever Received Treatment for Drug Use	No	Ref.		
	Yes	1.516	0.414 – 5.544	0.530

RESULTS

- The prevalence of antiretroviral medication non-adherence among HIV/HCV co-infected patients was 77%.
- Compared to HIV/HCV co-infected patients who self-reported adherence, HIV/HCV co-infected patients who self-reported non-adherence were more likely to use alcohol (29% vs. 74%, p=0.000) and drugs (13% vs. 36%, p=0.019), have past treatment for drug use (17% vs. 37%, p=0.043), and they were younger (60 vs. 54, p=0.008) and had a higher number of daily alcoholic drinks (2.0 vs. 0.6, p=0.001).
- In multivariate analysis, a higher number of daily alcoholic drinks (OR=2.390, CI: 1.285-4.445) was positively associated with antiretroviral medication non-adherence.

DISCUSSION

- The prevalence of antiretroviral medication non-adherence among HIV/HCV co-infected patients in clinical care was alarmingly high.
- HIV/HCV co-infected patients with higher numbers of daily alcoholic drinks were 2.390 times more likely to self-report antiretroviral medication non-adherence.
- Novel alcohol use reduction or cessation interventions are needed in HIV clinics to help HIV/HCV co-infected patients achieved behavioral change to improve medication adherence and optimal HIV viral suppression.