

**Title:** Evaluation of alcohol use behavior among patients cured in Georgia's HCV elimination program (preliminary results)

**Authors:** Maia Butsashvili<sup>1</sup>, George Kamkamidze<sup>1</sup>, Salome Gudavadze<sup>1</sup>, Lasha Gulbiani<sup>1</sup>, Lia Gvinjilia<sup>2</sup>, Tinatin Kuchuloria<sup>2</sup>, Irina Tskhomelidze<sup>2</sup>, Shaun Shadaker<sup>3</sup>, Paige A. Armstrong<sup>3</sup>

**Affiliations:**

1. Health research union/Clinic Neolab, Tbilisi, Georgia
2. The Task Force for Global Health, Tbilisi, Georgia
3. Division of Viral Hepatitis, National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention, CDC

**Background and Aims:** Georgia has one of the highest rates of wine consumption in the world. Combined with a high prevalence of chronic hepatitis C virus (HCV) infection, the synergistic effects can lead to worse liver-related outcomes. There is no data on the role of alcohol consumption on progression of liver disease among HCV infected patients in the country. This study evaluates alcohol consumption behaviors among patients in the HCV program.

**Method:** An interviewer-administered questionnaire was used to collect data on demographic, clinical, and drinking behavior. Patients were enrolled from three clinics, one in Tbilisi and two in other large cities in Georgia. Participants were then randomly selected from the list of patients treated with direct acting antivirals (DAAs), and who subsequently achieved sustained virologic response (SVR). Data on baseline and post-treatment fibrosis levels (measured by FIB4 score or liver elastography) were abstracted to evaluate association of alcohol use with liver fibrosis progression.

**Results:** As of December 2020, 256 patients were enrolled in the study. Of those, 11.1% were ≤35 years old, 81.7% were male, 69.8% were married, 38.9% had university degree, and 61.5% were employed. Majority of participants (93.7%) report ever using alcohol in their lifetime, and 10.3% consider themselves heavy drinkers. Nearly all (94.1%) participants knew that heavy alcohol consumption can accelerate development of liver fibrosis, and 97.5% abstained from alcohol during treatment. Among those, 75.7% resumed drinking after achieving SVR. More than half (52.1%) of the patients felt moderate alcohol intake is normal for those with low fibrosis scores; 12.8% of patients thought drinking is unacceptable among people with HCV infection.

In bivariate analysis, patients who abstained from alcohol after achieving SVR were 4 times more likely to have improvement in liver fibrosis compared to those who resumed drinking (29.5% vs 7.4%, respectively;  $P < .02$ ).

**Conclusion:**

Drinking alcohol is common in Georgia and a high proportion of people in the HCV treatment program consume alcohol. Abstaining from alcohol is advantageous to improvement in fibrosis, even after SVR has been achieved. However, majority of HCV patients do not drink alcohol during treatment, but resume drinking after achieving SVR. The findings present an opportunity to focus messaging and education for patients during DAA treatment to improve outcomes even after completion of treatment.