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Intersecting Epidemics: HIV, HCV, and Alcohol Use

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Globally, UNAIDS estimates (2015) that 36.7 million people were living with HIV at the end of 2015. While the prevalence of HIV is falling in many countries, one country that has not seen a retrenchment in HIV prevalence is Russia. In Russia, there are more than 98,000 new HIV infections reported in 2015 making it the largest HIV epidemic in Eastern Europe and Central Asia (EOCD, 2016). In 2016, it was estimated that there were approximately 850,000 – 1.5 million HIV-infected people in Russia [1].

An estimated 16% to 33% of HIV-infected individuals are also infected with chronic hepatitis C virus (HCV) [2]. For HIV-infected individuals within Europe, chronic hepatitis C virus (HCV) is the fifth leading cause of death [3]. An NIAAA funded study observed that 57.1% of HIV+ women recruited from a clinical care center in Russia were co-infected with HCV [4]; a rate much higher than the estimated 16%-33% [2]. Individuals co-infected with HIV and HCV are at greater risk for developing liver diseases (e.g., hepatocellular carcinoma) earlier and are more severe than HIV-mono-infected individuals [5].

Given the intertwined nature of the HIV and HCV epidemics, with an increasing prevalence in Russia, there is an urgent need to control these epidemics. Many HIV reduction strategies are focused on providing immediate access to antiretroviral (ARV) medication for newly diagnosed HIV-infected individuals. Even the UNAIDS has set a 90-

90-90 treatment target to ensure that 90% of individuals living with HIV know their status, 90% of HIV-infected individuals are on treatment, and 90% of these people on treatment have suppressed viral load (UNAIDS, 2015). While ARVs are effective, high levels of adherence is needed to maintain optimal viral suppression. HIV-infected individuals are at risk for several categories of incomplete ARV adherence including delayed ARV initiation [6], treatment interruption, or treatment discontinuation, all of which negatively impact their health [7]. One other factor that may adversely affect ARV adherence is alcohol use [8].

Alcohol use is prevalent in Russia and contributes to accelerated HIV and HCV progression. Observations among cohorts of HIV-infected individuals show elevated rates of hazardous drinking [9]. Alcohol use has also been associated with adverse health consequences among HIV infected individual [10], including diminished cerebral cortex functioning and increased risk for HIV-associated dementia [11]. Among individuals with HCV, alcohol use accelerates liver damage (e.g., liver steatosis, cirrhosis) and disease progression [12]. Interactions with alcohol and ARVs may also contribute to hepatoxicity and liver disease [11], which may be accelerated by co-infection with HCV [13]. Thus, to achieve optimal viral suppression and reduce disease HIV and HCV progression, there is a critical need for interventions that target alcohol use.

Unfortunately, evidence-based programs targeting alcohol use in this population is limited [10]. A literature review of 14 interventions to reduce alcohol use among HIV-infected individuals found mixed efficacy in reducing alcohol use frequency and quantity [10]. Furthermore, in the only intervention trial for HIV-infected Russian drinkers, there was limited evidence of intervention efficacy in reducing incident STIs or HIV transmission behaviors relative to the control group [14]. Given the prevalence and severity of HIV/HCV co-infection, there is an urgent need to develop and evaluate interventions to reduce alcohol use among this vulnerable and growing population.

Conflict of Interest

There are no conflicts of interest to disclose.

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