Viral Suppression and Viral Rebound among Young Adults Living with HIV in Canada

Authors: Alexis PALMER MSc PhD1, Karyn GABLER MSc1, Beth RACHLIS MSc PhD1, Erin DING MSc1, Jason CHIA MSc1, Nic BACANI MSc1, Ahmed M. BAYOUMI MSc MD4, Kalysha CLOSSON MSc1, Marina KLEIN MSc MD2, Curtis COOPER MSc MD6, Ann BURCHELL PhD1,4, Sharon WALMSLEY FRCP MD7, Angela KAIDA MSc PhD1,8, and Robert HOGG MSc PhD1,8 for the Canadian HIV Observational Cohort (CANOC) Collaboration

Medicine, June 2018, 97(22)

Objective

The purpose of this study was to examine viral suppression and viral rebound among young adults aged 29 or younger.

Important of this Study

- For people living with HIV, viral suppression is the principal goal of HIV treatment
- Combination antiretroviral therapy (cART) is used to maintain good health and decrease likelihood of HIV transmission.
- Previous research shows that young adults are less likely than older adults to achieve and maintain viral suppression.

How this Study was Conducted

- Data was analyzed from the CANOC collaboration, an interprovincial collaborative cohort of HIV-positive individuals on antiretroviral therapy in Canada.
- Viral load measurements from patients' clinical health data were used to see if young adults were more or less likely than older adults to experience viral suppression and rebound.
- Viral load below the level of 50 copies/mL was the definition used for achieving viral suppression.
- Viral rebound was defined by a viral load above 50 copies/ml after previously achieving suppression.
- Patient characteristics and social indicators such as age, sex, ethnicity, injection drug use, etc., were examined for their effect on viral load suppression for younger and older adults.
- We also analyzed age-based differences in time to achieving viral suppression and time to viral rebound after suppression.

Study Results

- Adults aged 29 or younger were less likely to experience viral suppression. They also experienced faster viral rebound than older adults.
- For younger adults, viral suppression was associated with being male and having initiated HIV treatment during a later era of cART.
- Viral rebound was associated with a history of injection drug use and Indigenous ancestry.
- Viral rebound was also associated with initial CD4 count being greater than 200 and starting treatment with a regimen containing an ingredient called a protease inhibitor.

Implications

- Viral suppression and rebound were modestly affected by age in this study.
- Future health studies and interventions could target women, people who use injection drugs and people with Indigenous ancestry.

© 2018 CANOC