

**Clinical Sciences - Poster Abstracts / Sciences cliniques - Abrégés affiches**

Abstract #10

**Association between virtual visits and health outcomes in people living with HIV: A cross-sectional study**

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**Background:** Virtual care has been integrated as a modality of care in Ontario, yet its effectiveness for people living with HIV remains largely unexplored.

**Objectives:** We aimed to determine the association of visit modality (virtual, in-person, or both) on adherence to antiretroviral therapy (ART), viral load, and quality of life (QOL) in people living with HIV in Ontario, Canada.

**Methods:** We conducted a cross-sectional study using data from the 2022 Ontario HIV Treatment Network Cohort Study (OCS), collected during the COVID-19 pandemic when virtual visits were first introduced. Participants were grouped into three categories based on the mode of care: virtual, in-person, or a combination of both. Data were collected through self-reported questionnaires and medical records, with viral load data linked to Public Health Ontario Laboratories (PHOL). Regression was used to examine the factors associated with optimal ART adherence, viral load suppression, and quality of life (mental and physical).

**Results:** In 2022, 1930 participants accessed HIV care in the OCS. Among them, 19.0% received virtual care, 45.6% received in-person care, and 34.3% received care through virtual and in-person modalities. The median age of the participants was 55 years (IQR: 45-62). In the multivariable logistic regression model, virtual care was associated with an increased likelihood of optimal adherence to antiretroviral therapy (Adjusted Odds Ratio (AOR) 1.30, 95% confidence interval (CI): 1.00-1.70) and an increased likelihood of achieving viral load suppression (AOR 1.67, 95% CI: 1.03-2.63). Moreover, combined virtual and in-person care is associated with an improved mental quality of life compared to in-person care (Adjusted Mean difference (MD) - 0.96, 95% CI 0.05, 1.87).

**Conclusion:** Virtual care is positively associated with adherence to antiretroviral therapy (ART) and viral suppression within this context. However, future research is necessary to establish causality and to assess the long-term effects of virtual care.