COVID-19 OUTCOMES IN HIGHLY VACCINATED PEOPLE WITH HIV IN WESTERN AUSTRALIA: A CROSS-SECTIONAL STUDY

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Background:
People living with HIV (PLHIV) are heterogeneous, differing in viral control and immune suppression. Some sub-groups are at risk of poor coronavirus disease 2019 (COVID-19) outcomes, and exhibit attenuated COVID-19 vaccine response. The intersection of HIV and COVID-19 infections is evolving, with new severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) variants, vaccination uptake and antiviral availability. Due to Western Australia's (WA) pandemic border policy, negligible transmission of SARS-CoV-2 occurred until March 2022, when community vaccination rates were high, and the *Omicron* variant predominated. This study aims to assess vaccine uptake and COVID-19 outcomes in PLHIV, in this unique setting.

Methods:
A descriptive-analytical cross-sectional study of the WA South Metropolitan Health Service HIV patient population was conducted using a self-administered electronic survey from September to November 2023. Responses were cross-referenced against hospital records and the Australian Immunization Register (AIR).

Results:
147 responses were received, from the 483-patient database. 82 participants consented to linkage of survey responses, hospital records and AIR data. All had well-controlled HIV (100% had a last viral load of <200 copies/mL; 78% had CD4 counts >500 cells/mm^3). 95 participants reported at least one episode of COVID-19 (64.6%), of which 94 (98%) occurred in 2022 or 2023. 142 (96.6%) participants received at least one COVID-19 vaccine. Of those who consented to AIR access, 50/53 (94.3%) received the two-dose primary course plus booster before contracting COVID-19. 2 participants (1.4%) required admission for COVID-19 management, and 21 (22.1%) reported residual symptoms after recovery. COVID-19 antiviral uptake was low; 15 participants received treatment (15.8%), despite all being eligible under WA Department of Health policy at time of infection.

Conclusion:
Our results characterize the COVID-19 outcomes in a highly vaccinated and virally suppressed PLHIV population. While this population had high vaccine uptake, this didn't translate to similar rates of COVID-19 antiviral use.

Disclosure of Interest Statement:
No disclosures.