Time is of the essence: clinical frailty among a cohort of Indigenous peoples aging with HIV in Ontario, Canada

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Background: As the cohort of people living with HIV (PLHIV) grows older on average, geriatric and HIV care must co-evolve. Within this cohort, Indigenous Peoples remain overrepresented. The aging experience for Indigenous older adults living with HIV (IOALWH) involves the intersecting effects of systemic colonial oppression, intergenerational trauma, continued racist violence, service inaccessibility, and socioeconomic disadvantage. These factors have contributed to increasing health disparities within Indigenous communities, translating to higher co-morbidity burden and worse health outcomes. Owing to both their HIV status and Indigenous identity, IOALWH may face disproportionate burdens while aging. This study aims to characterize clinical frailty in a cohort of IOALWH.

Methods: The OHTN Cohort Study (OCS) is an open longitudinal cohort of PLHIV at 15 clinical sites in Ontario, Canada, with currently over 5000 people under active follow-up. The study includes data abstraction from clinical records, laboratory reports, and an annually administered questionnaire. We assessed clinical frailty using the modified frailty index (mFI), approximated with aggregations of ICD-10 codes from diagnostic records. Presentation of a frailty related condition contributes to a frailty score. A score of 0 represents no clinical frailty, 1-2 is pre-frailty, and ≥3 is clinical frailty.

Results: Data from 6582 participants (n=330 Indigenous) and diagnostic reports from 1940-2018 were included. IOALWH faced greater rates of pre-frailty (49.7% vs. 41.1%) and clinical frailty (8.8% vs. 5.8%). IOALWH acquired all clinical indicators at earlier median ages, including HIV (31 vs. 34), AIDS (36 vs. 40), pre-frailty (40 vs. 44), and clinical frailty (51 vs. 56). Certain frailty indicators were overrepresented among IOALWH compared to non-Indigenous OALWH, including impaired sensorium (+21.1% greater prevalence), COPD/pneumonia (+7.6%), diabetes (+2.3%), and non-independent functional status (+2.3%). In a multivariate logistic model, intravenous drug use (IVDU; OR 1.97, p<.0001), AIDS (OR 1.57, p<.0001) and Indigenous Identity (OR 1.57, p<.0001) were found to be independent predictors of pre-frailty and clinical frailty.

Conclusions: IOALWH face disproportionate burdens of aging-related co-morbidities and acquire clinical frailty at earlier ages compared to non-Indigenous OALWH, independent of IVDU and AIDS. Healthcare delivery must address underlying inequities by co-evolving HIV and geriatric care to respond to earlier and more complex care needs.