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CHANGE Correlates of Healthy Aging in Geriatric HV

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Background

 Older patients (≥65 years) with HIV are at higher risk for comorbidities including neurocognitive effects, falls and frailty.

 Polypharmacy (≥5 non-ARV medications), severe polypharmacy (≥10 non-ARV medications) and the use of potentially inappropriate medications (PIMs) in older people with HIV can increase the risk of negative outcomes. Anticholinergic and sedative burden can contribute to falls and poorer outcomes.

Results

- Excluding ART, 93.6% were on a median five (range 1-26) prescribed comedications
- 15.9% were frail, 20.2% had a fall within the last six months, 16.4% had high ACB and 38.6% had moderate-severe sedative burden.

Results



• We aimed to characterize the prevalence of polypharmacy, PIMs, anticholinergic/ sedative burden, frailty and falls in a Canadian cohort of older people with HIV.

Methods

 Data obtained from CHANGE-HIV, a longitudinal Canadian cohort of people with HIV aged 65 years and older.

 Proportion of people with polypharmacy, severe polypharmacy and PIMs (Beers and STOPP criteria) were determined.

 Anticholinergic burden (ACB) → combination of Anticholinergic Cognitive Burden scale and German Anticholinergic Burden Scale (GABS). Cumulative score of ≥3 is considered high burden.

Table 1. Baseline Characteristics

haracteristic	cs (N	 =440 ª)	n (%) ^a
ge (years)	Γ	Median (range)	69 (65-89)
ex		Male	403 (91.6)
		emale	37 (8.4)
t hnicity n=439)		Black	55 (12.5)
		Nhite	333 (75.6)
		Other	51 (11.6)
SMI (kg/m²)	Γ	Median	25.7
า=415)	2	≥30	78 (18.8)
comorbidities		High cholesterol/ riglycerides (n=437)	220 (50.3)
		Hypertension (n=437)	191 (43.7)
		Cancer (n=436)	127 (29.1)
		Diabetes (n=436)	101 (23.2)
		History of CAD (MI, Angina) (n=436)	75 (17.2)
	L	iver disease (n=436)	62 (14.2)
	(CKD (n=436)	51 (11.7)
		COPD (n=436)	42 (9.6)
railty	F	Pre-Frail	268 (62.9)
า=426)	F	Frail	70 (16.4)
		Frail with recurrent alls (n=70)	13 (18.6)
alls (last 6 nonths)		l fall (n=429)	89 (20.7)
		Recurrent Falls (2 or nore) (n=88)	36 (8.2)
		HIV Specific	
uration of H	IV	Median (years)	26.0
Surrent ART reatment core agent)		INSTI	96 (21.8)
		NNRTI	69 (15.7)
		PI	106 (24.1)
		Single tablet regimen	307 (69.8)
		Medications	
Ion-ARV Iedications	Total in cohort		2349 (100)
	Median/person (range)		5 (0-26)
oly- harmacy	Polypharmacy (≥5 medications)		234 (53.2)
	Severe polypharmacy (≥10 medications)		65 (14.8)
nless indicated othe	erwise		

 Sedative burden → Anticholinergic and Sedative Burden Catalog (ACSBC).
 Determined those with moderate and severe sedation.

• Frailty \rightarrow Fried Frailty Phenotype.

 Chi-Square T-test to compare % of patients with falls or frailty depending on potential risk factors: falls, recurrent falls (≥2 within 6 months), anticholinergic burden, sedative burden, polypharmacy, severe polypharmacy and PIMs

Variables (N	n (%) ^a	
PIMs	Average # of PIMs/person (range)	0.85 (0-7)
	Patients with no PIMs	223 (50.7)
In those with PIMs (N=217)	Patients with 1 PIMs	127 (58.5)
	Patients with 2 PIMs	50 (23)
	Patients with 3 or more PIMs	40 (18.4)
Anti- cholinergic burden (ACB)	No anticholinergic burden	196 (44.5)
	Mild-moderate ACB (cumulative score: 1-2)	172 (39.1)
	High ACB (cumulative score: ≥3)	72 (16.4)
Sedative burden	No sedative burden	60 (13.6)
	Low sedative burden	210 (47.7)
	Moderate-severe sedative burden	170 (38.6)

Medications	n(%)			
PPIs	79 (21.0)			
Testosterone (no indication)	43 (11.4)			
ASA for 1 ^o prevention	43 (11.4)			
Benzodiazepines	40 (10.6)			
# of PIMs/total # of non-ARV medications 372 (15.8)				
Amitriptyline	6 (15.4)			
Fesoterodine	6 (15.4)			
Paroxetine	5 (12.8)			
# of total ACB medications (score 1-3) / 4 total # non-ARV meds				
Zopiclone	31 (10.3)			
Lorazepam	26 (8.6)			
Pregabalin	22 (7.3)			
# of total ACSBC meds (score 1-3) / total # non-ARV meds				
	MedicationsPPIsTestosterone (no indication)ASA for 1° preventionBenzodiazepinesJenzodiazepinesof non-ARV medicationsFesoterodine ParoxetineParoxetineV medsZopicloneLorazepamPregabalinC meds (score 1-3) / total ds			

Results

 440 CHANGE-HIV participants were included. The median age was 69 (range 65-89), 91% men, 76% Caucasian, 99.5% were virally suppressed, median CD4 nadir of 200 cells/mm3, median 26 years living with HIV.

Polypharmacy was prevalent in 53% of older adults living with HIV with half the cohort having at least 1 PIM and ~10% having \geq 3 PIMs. PIMs had good

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- Polypharmacy was prevalent in 55% of older addits living with five with half the conort having at least 1 Privil and ~10% having ≥5 Privis. Privis had good concordance between Beers and STOPP. More than a third (39%) had moderate-high sedative burden and 16% had high anticholinergic burden.
 In those with frailty, recurrent falls, high ACB, moderate-severe sedative burden, polypharmacy and severe polypharmacy
 → higher incidence of falls within the past 6 months
- In those with falls, high ACB, moderate-severe sedation score and PIMs → higher prevalence of frailty
- Most common PIMs included: Aspirin for primary prophylaxis, testosterone without an indication, PPIs and benzodiazepines
 Limitations: retrospective design: possible underreporting of PIMs as missing clinical data to apply STOPP/Beers criteria

Conclusion

Polypharmacy is common among older adults living with HIV in Canada, with many taking PIMs, as well as having high anticholinergic and sedative burden.
In this study, higher risk of frailty and/or falls seen in patients with anticholinergic and sedative burden, PIMs and severe polypharmacy.
Interventions to address medication-related issues in the aging populations are imperative.