



Epidemiologic/Population Research Group:

How Do HIV, Risk Behaviors, and ART Influence Aging Syndromes, Particularly Frailty, Falls, and Polypharmacy?

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Frailty in HIV

- Aging-related syndrome marked by:
 - ↓ physiologic reserve, ↑ vulnerability to stressors
- Significant clinical, public health relevance as PLWH age
- Lack of valid instruments to measure frailty, risk factors in HIV
- **Key research questions:**
 1. Develop, validate frailty instruments in PLWH
 2. Use instruments to evaluate underpinnings of frailty in HIV
 3. Examine effects of non-drug interventions (exercise) on frailty in HIV

Falls in HIV

- PLWH have ↑ prevalence of fall risk factors (EtOH, drug use)
 - Fall rates in middle-aged (45-65 years) PLWH similar to rates among uninfected adults aged ≥65 years
- Effects of ART, non-ART drugs on falls remain unclear
- **Key research questions:**
 1. Determine how ART modifies fall risk among PLWH
 2. Examine how alcohol, analgesics, MAT affect fall risk, by HIV
 3. Evaluate how HIV modifies interventions to falls, fractures

Polypharmacy in HIV

- More common in PLWH versus uninfected
 - PLWH require more non-ARV drugs to treat comorbidities
- ↑ risk of mortality → harms ↑ with # of drugs, age, frailty
- **Key research questions:**
 1. Identify mechanisms of ARV/non-ARV drug-drug interactions
 2. Evaluate polypharmacy's effects on comorbidities in PLWH
 3. Determine impact of de-prescribing drugs among PLWH