

# Frailty of Greek PLWHIV in association with clinical markers and psychological factors; Preliminary results of a nationwide study.

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## Background

Access to ART has transformed HIV infection natural history to a chronic illness for PLWHIV. Frailty despite being a geriatric syndrome, is known to prematurely affect PLWHIV.

## Aim of the study

To describe the frequency of frailty and the prevalence of frailty criteria in Greek PLWHIV and investigate potential associations with clinical and psychological factors, towards a holistic evaluation of individuals living with the HIV condition.

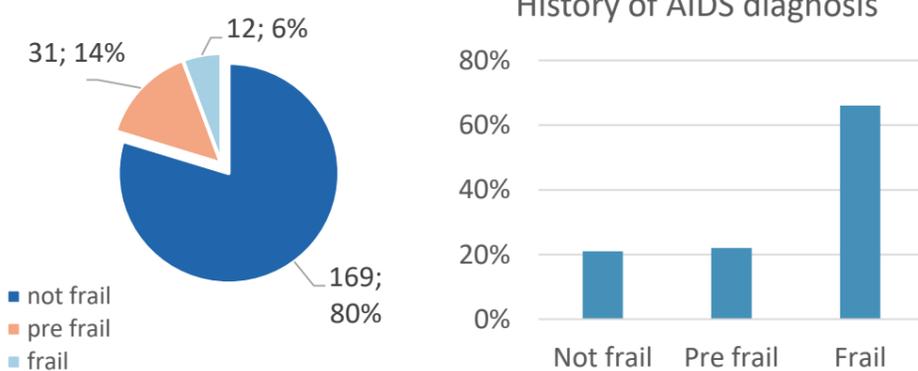
## Methods

As a part of a nationwide cross-sectional study, including 6 major HIV clinics, current analysis concludes results from 3 HIV clinics (N=3). This study started in January 2020, with an aim of 450 participants (age ≥ 18 y.o.), however, the preliminary results shown include data from 212 participants (n=212). **Frailty assessment** took place within clinical practice, according to Fried et al. 2001 criteria and definitions, namely: weight loss, feelings of exhaustion, physical activity levels, grip strength and walking speed. Frail individuals satisfied 3 out of 5 criteria, while pre-frail individuals satisfied 2 out of 5 criteria. **Psychological assessment** concerned the use of self-report questionnaires over the issues of: quality of life (EQ5D5L, EQVAS), illness perceptions (Brief Illness Perceptions Questionnaire, BIPQ) and treatment beliefs (Beliefs about Medicine Questionnaire, BMQ). A higher BIPQ score reflects a more threatening view of the illness, while a higher EQ VAS score reflects a better perception of own health. **Clinical** and **sociodemographic** data for each patient were included. Data analysis was performed with SPSS and R.

## Results

### 1. Frailty in Greek PLWHIV.

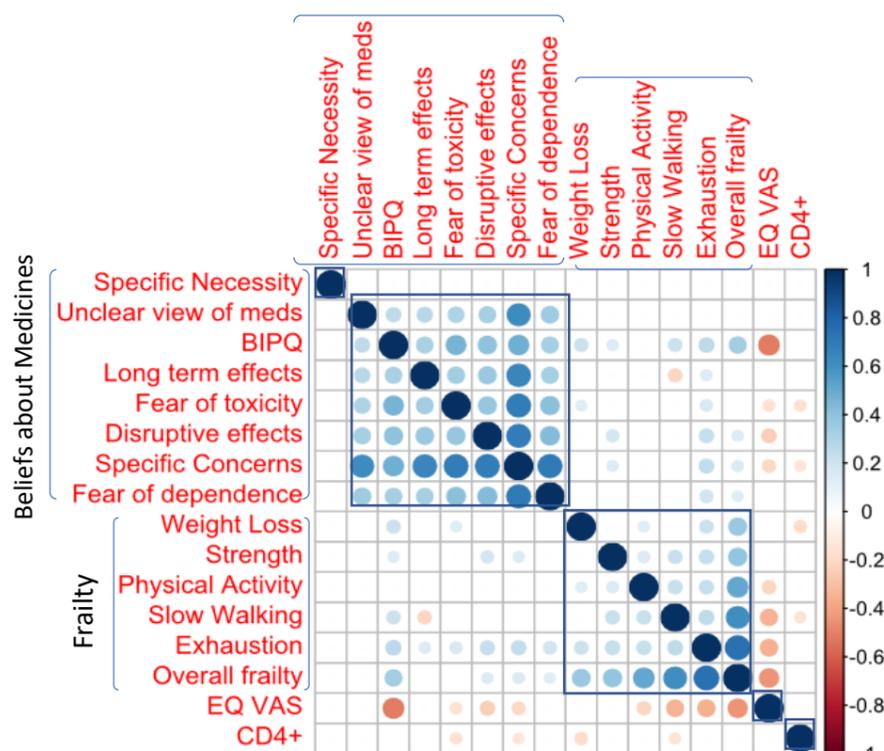
Based on the overall frailty assessment, ~20% of Greek PLWHIV are prefrail or frail.



**Fig. 1:** *Left:* Frequencies of overall frailty assessment in Greek PLWHIV. *Right:* Frequencies of AIDS positive and negative diagnosis in PLWHIV in frailty groups.

Frailty and History of AIDS diagnosis are significantly dependent.

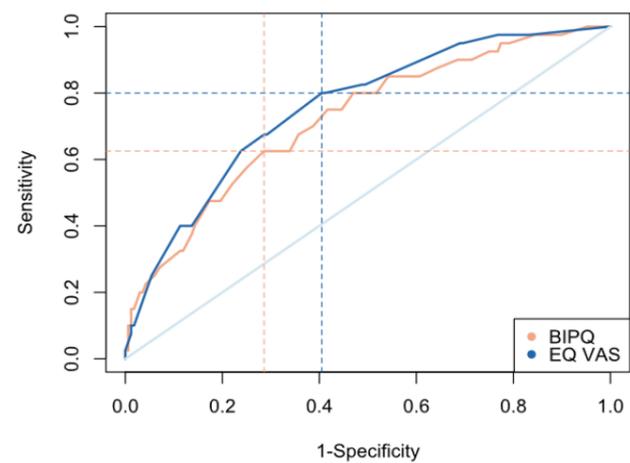
### 2. Associations of frailty criteria.



**Fig. 2:** Correlation map of associations between factors (frailty, clinical, psychological). Positive and negative correlations differ by color and intensity. Two distinct clusters are visible: one consists of beliefs about medicines items and the other consists of frailty items.

### 3. Health & illness perceptions as indicators of frailty.

EQ VAS (Health perception) scores less than 80.5 & BIPQ (Illness perception) scores greater than 34.5 are optimum cut-off points to classify PLWHIV between prefrail/frail & not frail PLWHIV. For EQ VAS; Mean = 80,2, SD = 16,9 and for BIPQ; Mean = 28,5, SD = 12,4.



**Fig. 3:** ROC curves of EQ VAS & BIPQ on frailty classification. Dotted lines point to Youden index for each curve.

## Conclusions

- The prevalence of frailty (frail & pre frail) in the Greek PLWHIV study cohort is ~20%.
- The association of a history of AIDS diagnosis and frailty in PLWHIV, highlights the need for early diagnosis and intervention in order to avoid progression to AIDS and frailty.
- As the health state declines with frailty, individuals' perception of their own health state worsens, and a more threatening view of illness prevails.
- PLWHIV's own perception of their health status and their illness are useful indicators of frailty assessment or need for frailty evaluation.

## Acknowledgments

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