



Existing and Future Trials Have Potential to Provide Information on Frailty among People with HIV

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BACKGROUND

There is currently a great interest understanding frailty in people with HIV, as it is considered as an accelerated aging factor. Majority of the frailty studies are secondary analysis of existing datasets.

Fried's Frailty Criteria, the most widely used frailty classification, include exhaustion, low energy expenditure, slow walking speed, reduced muscle strength, and unintentional weight loss.

Of these, walking speed and muscle strength are tested using a walking test and hand dynamometer.

These performance-based tests are unlikely to be administered in busy clinical practices owing to lack of training, space, and access to specialised equipment.

Self-report proxy items have been used to replace the performance-based tests and Health Related Quality of Life (HRQL) measures have items that cover the frailty criteria.

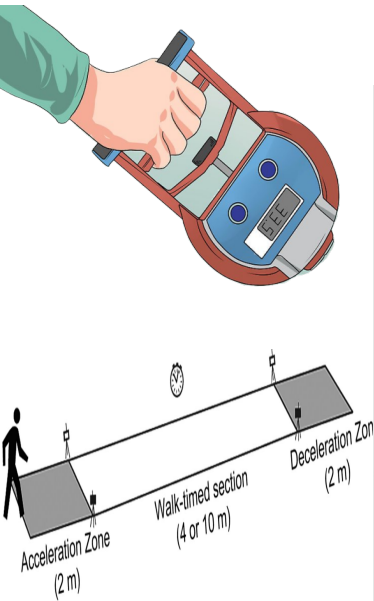
Most HIV clinical trials include a generic or HIV specific HRQL measure that could be mined to identify prevalence of frailty.

In addition, the rich biological data could be used to understand the contributors and consequences of frailty in this population.

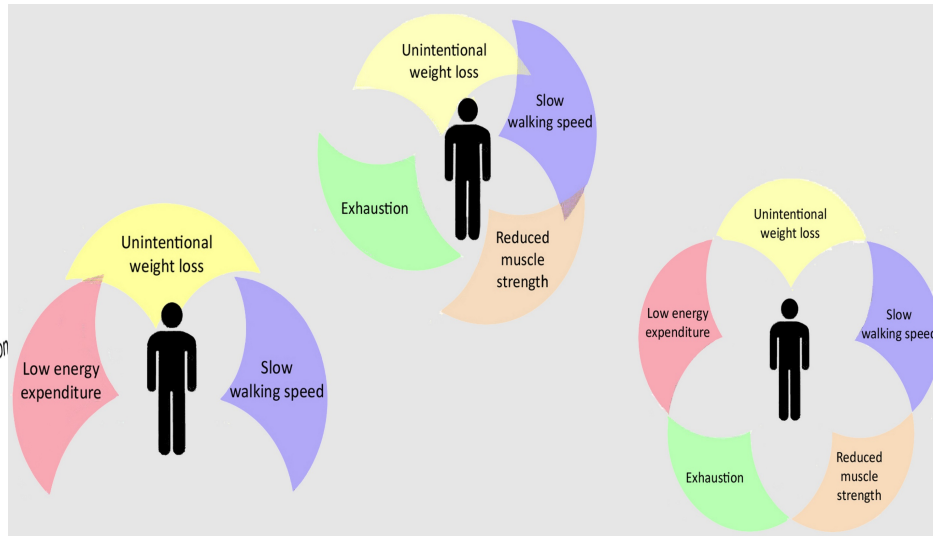
OBJECTIVE & METHODS



The objective is to estimate the extent to which clinical trials in HIV use HRQL measures that can be used to identify frailty in the HIV population.

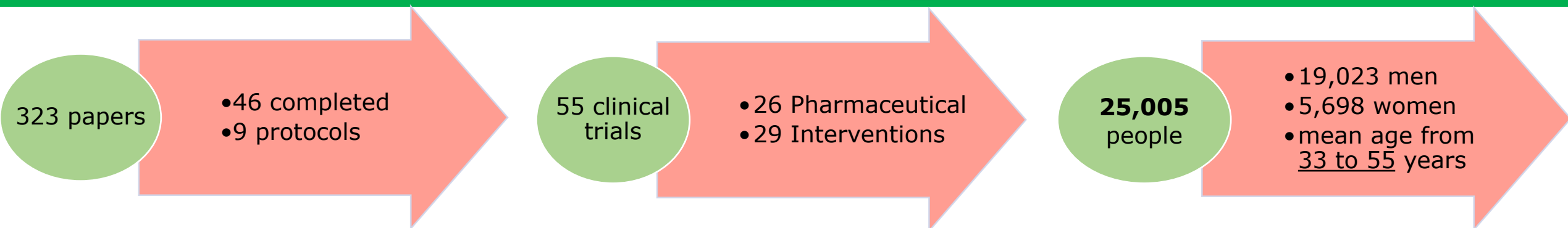


FRIED'S FRAILTY CRITERIA



- The source of data is from a systematic search on PubMed database for clinical trials in HIV.
- Study characteristics and the specific measures used were extracted from the included studies.
- Items of the HRQL measures mapped to the Fried's Frailty Phenotype criteria.
 - HRQL measures that covered 3 or more of the 5 frailty criteria were considered a frailty estimable HRQL measure.

RESULTS



HIV-Specific HRQL Measures						
	Exhaustion	Low Energy Expenditure	Slow Walking Speed	Reduced Muscle Strength	Unintentional Weight Loss	# Criteria
ACTG-SF 21	Energy / fatigue subscale	Vigorous or strenuous activities without limitations	Limitation in walking uphill or climbing a few flights of stairs	Limitation in lifting heavy objects		4
EORTC QLQ-C30	Short of breath / felt weak / tired	Trouble doing strenuous activities	Trouble taking a long walk or a short walk outside of the house	Trouble with carrying a heavy shopping bag		4
HIV-47 (MOS-HIV)	Energy / fatigue subscale	Limitation in moderate / vigorous activities	Limitation in walking a distance	Limitation in lifting light objects		4
FAHI	Lack of energy / feel fatigued / tired easily				Bothered by a change in weight	2
WHOQOL-HIV BREF	Energy for everyday life					1
HAT-QOL						0

Generic HRQL Measures						
	Exhaustion	Low Energy Expenditure	Slow Walking Speed	Reduced Muscle Strength	Unintentional Weight Loss	# Criteria
Quality of Well-Being Scale	General fatigue, tiredness, or weakness	Limitation in physical movements	Trouble walking / walk more slowly / getting around your home	Limitation in lifting or carrying	Unwanted weight gain or weight loss	5
SF-36	Worn out / tired / energy	Limitation in moderate / vigorous activities	Limitation in walking several blocks / walking one block	Limitation in lifting and carrying		4
Sickness Impact Profile		I stay at home most of the time	Walking shorter distances or stop to rest often / I walk more slowly	I move my hands or fingers with some limitation or difficulty		3
SF-12	Energy subscale	Limitation in moderate activities				2
WHOQOL-BREF	Energy for everyday life					1
EQ-5D						0

CONCLUSION

Frailty Informative HRQL Measures

- AIDS Clinical Trials Group-SF 21
- The European Organization for Research and Treatment of Cancer Quality of Life Questionnaire with 30 items
- Medical Outcomes Study-HIV with 47 items
- Quality of Well-Being Scale
- Sickness Impact Profile

Proxy Items for Slow Walking Speed

- Limitation in walking uphill or climbing a few flights of stairs
- Limitation in walking a distance
- Limitation in walking several blocks / walking one block
- Trouble taking a long walk or a short walk outside of the house
- Trouble walking / getting around your home
- Walking shorter distances or stop to rest often / walking more slowly

Proxy Items for Reduced Muscle Strength

- Limitation in lifting heavy objects
- Limitation in lifting light objects
- Limitation in lifting and carrying
- Trouble with carrying a heavy shopping bag
- I move my hands or fingers with some limitation or difficulty

- There is a wealth of existing data that could be tapped to conduct an in-depth study of frailty in middle-aged people living with HIV.
- 3 HIV-Specific and 2 generic HRQL measures provide information on frailty.
- Data from the trials that administered these 5 measures could be used to identify the prevalence of frailty.
- Future studies should consider validating the self-report items to be used proxies in estimating frailty.