TITLE
Concordance of self-reported and point-of-care biomarkers of alcohol use measures among older adults with HIV f
middle-income countries, the Sentinel Research Network of IeDEA

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BACKGROUND: Measuring alcohol use is challenging within HIV care services, particularly in low resource settings. Self-
measurements of alcohol use are rapid and inexpensive yet highly susceptible to mismeasurement. Understanding tl
care (POC) urine biomarkers and their concordance with self-report will inform strategies for alcohol use measuremer
people with HIV (PWH) in low- and middle-income countries.
METHODS: We analyzed cross-sectional data from the International epidemiology Database to Evaluate AIDS (IeDEA)
Network (SRN) cohort of PWH aged =40 years from HIV clinics within the Asia-Pacific, Central/Latin America, and Africc
assessed concordance of self-reported alcohol use and POC urine ethylglucuronide (uETG) testing (alcohol detectable
We examined the associations between self-reported alcohol measures and uETG using mixed-effect logistic regressi
age and sex (fixed) and clinic site (random). We fitted 5 models of uEtG positivity: alcohol use frequency, number of dr
binge drinking frequency, unhealthy alcohol use (AUDIT-C =3 for women, =4 for men), and possible alcohol use disorde
women, =15 for men).
RESULTS: Of the 2059 participants, 46% (n=945) were men, 52% (n=1,067) reported drinking alcohol, and 20% (n=406) re|
drinking. A total of 251 participants (12%) tested uEtG positive, with 140 (56%) reporting unhealthy drinking and 111 (44%
unhealthy drinking. Concordance of self-reported unhealthy alcohol use and uEtG was 82% (kappa=0.32) with differer
87%; kappa=0.29; men: 75%; kappa=0.17). In multivariate models, all measures of self-reported alcohol use were assoc
uEtG.
CONCLUSIONS: Though lower among men when compared to women, the overall concordance between self-reporte
urine POC biomarker was moderate. Alternative biomarkers with longer detection windows should be used to validat
augment self-reported measures. Further approaches for incorporating objective biomarkers should be explored for
and interventional efforts addressing alcohol use among PWH in low resource settings.