

Appendix Table 1. Drinking and HIV-related outcomes by treatment group

Outcome	Integrated Stepped Alcohol Treatment, n=49 ^a	Treatment as Usual, n=46 ^a	Adjusted Treatment Effect (95% CI) ISAT vs. TAU ^{b,c}	P value ^b
Self-reported abstinence, n (%)				
Baseline	0/49 (0)	0/46 (0)	NA	NA
Week 24	16/42 (38.1)	9/39 (23.1)	2.6 (0.8, 9.0)	0.12
Week 52	13/40 (32.5)	13/36 (36.1)	0.8 (0.3, 2.7)	0.75
Drinks per week, Lsmean (SD)				
Baseline	3.4 (3.3)	3.6 (4.6)	NA	NA
Week 24	2.5 (6.1)	3.5 (8.2)	0.3 (-2.0, 2.6)	0.79
Week 52	2.5 (4.8)	1.9 (3.1)	0.2 (-1.2, 1.6)	0.75
No heavy drinking days, n (%)^d				
Baseline	39/49 (79.6)	36/46 (78.3)	NA	NA
Week 24	34/42 (81.0)	35/39 (89.7)	0.4 (0.1, 1.9)	0.22
Week 52	35/40 (87.5)	32/36 (88.9)	0.5 (0.1, 2.8)	0.41
Drinks per drinking day, Lsmean (SD)				
Baseline	2.3 (0.9)	2.0 (1.1)	NA	NA
Week 24	2.5 (2.0)	4.6 (18.0)	-2.0 (-6.7, 2.7)	0.39
Week 52	2.7 (2.2)	1.9 (1.3)	-7.7 (-23.2, 7.8)	0.32
Percentage of days abstinent, Lsmean (SD)				
Baseline	79.2 (18.2)	76.0 (23.9)	NA	NA
Week 24	89.4 (17.7)	82.1 (25.4)	2.1% (-3.6%, 7.7%)	0.47
Week 52	89.4 (16.7)	86.3 (19.2)	1.6% (-6.1%, 9.3%)	0.68
Abstinence by PEth, n (%)^e				
Baseline	19/49 (38.8)	20/43 (46.5)	NA	NA
Week 24	16/37 (43.2)	10/31 (32.3)	1.8 (0.5, 6.3)	0.34
VACS Index, Lsmean (SD)^f				
Baseline	37.3 (19.4)	43.8 (21.9)	NA	NA
Week 24	35.9 (17.5)	42.1 (24.2)	1.1 (-3.2, 5.5)	0.60
Week 52	37.8 (18.7)	41.4 (21.1)	0.8 (-4.5, 6.1)	0.77
Undetectable HIV viral load, n (%)^g				
Baseline	36/49 (73.5)	32/45 (71.1)	NA	
Week 24	26/36 (72.2)	30/35 (85.7)	0.3 (0.1, 1.3)	0.09
Week 52	32/38 (84.2)	27/34 (79.4)	1.7 (0.4, 8.4)	0.49
FIB-4				
Baseline	2.3(1.5)	2.7 (1.5)	NA	
Week 24	2.3 (1.7)	2.7 (1.8)	-0.2 (-0.9, 0.5)	0.52
Week 52	2.5 (2.0)	3.2 (2.5)	-0.6 (-1.6, 0.4)	0.22
Alanine aminotransferase				
Baseline	52.550.5	45.2 (29.4)	NA	

Week 24	35.333.6	45.8 (41.0)	-7 (-20, 7)	0.32
Week 52	35.526.3	52.6 (67.5)	-19 (-42, 4)	0.10
Aspartate aminotransferase				
Baseline	48 (31.4)	47.8 (26.2)	NA	
Week 24	36.7 (33.6)	45.7 (29.7)	-4 (-15, 7)	0.45
Week 52	39.5 (23.2)	57.9 (57.4)	-17 (-36, 2)	0.08

a. Unadjusted estimates

b. Estimates based on results from linear mixed effects models for continuous outcomes and generalized linear mixed effects models for binary outcomes. For binary variables, treatment effects are expressed as an adjusted odds ratio.

c. Values adjusted for baseline assessment, baseline VACS Index and site (except PEth focused analyses only adjusted for baseline assessment and VACS index)

d. No heavy drinking defined as the absence of any heavy drinking days in the past 30 days, where a heavy drinking days is defined for men ≥ 5 drinks per day and for women as ≥ 4 drinks per day.

e. PEth = phosphatidylethanol, an alcohol biomarker reflecting alcohol use over the past 21 days and higher scores are associated with higher levels of alcohol use. PEth < 8 ng/mL consistent with abstinence or near abstinence.⁴¹

f. VACS Index is a validated measure of morbidity and mortality based on age, HIV biomarkers (CD4 cell count, HIV viral load), hemoglobin, FIB-4 score (a measure of liver fibrosis calculated based on aspartate and alanine aminotransferase and platelet count), creatinine and hepatitis C status. Scores range from 0 to 164; each 5 point increase is associated with a 20% increase in 5 year mortality risk.^{7,57}

g. Undetectable HIV viral load was based on the limit of detection and defined as < 50 copies/mL.