

Supplemental Digital Content 2. Methodologic assessment (N=17)

ID	Study	Study Design	Comparability of intervention & control groups	Follow-up & retention (% , unless specified)								Methods for handling missing data & patients LTF
				F/U	LTF (I)	LTF (C)	DISC (I)	DISC (C)	DIED (I)	DIED (C)	ATTR	
A	Altice et al. ⁵³ & Maru et al. ⁸⁴	RCT	Randomization 2:1 (I:C) at individual level. No significant differences in baseline demographic measures, but higher median baseline HIV load for (I) (3.8log ₁₀ copies/ml v. 2.8log ₁₀ copies/ml; p=0.07) & lower median baseline CD4 cell count in (I) (283 cells/mm ³ v. 383 cells/mm ³ , p=0.04); both controlled for in final analyses.	6, 12 months	11	2	28	0	2	2	28	Intent to treat; missing HIV load & CD4 values imputed as zero change from baseline
B	Arnsten et al. ⁵⁴	RCT	Randomization at individual level. No significant difference in baseline virologic measure.	6 months	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
C	Babudieri et al. ⁵⁵	Controlled cohort study	Non-random cluster analysis of individuals in prisons delivering DOT versus those in prisons without DOT. No significant difference in baseline demographic, virologic or immunologic measures.	Variable (mean I: 8.7 & C: 8.5 months)	0	0	5	0	0	0	2	Excluded missing data
D	Bangsberg et al. ⁸³	RCT	Randomization 2:1 (I:C) at individual level. No significant difference in baseline age, substance use, or HIV RNA.	3, 6, 9 months	2	6	18	13	0	3	21	Intention to treat; missing data imputed as failure
E	Gross et al. ⁸⁰	RCT	Randomized 1:2 (I:C) at individual level with stratification by HIV RNA level & balancing by main institution. Baseline demographic, virologic, & immunologic measures similar.	6, 12 months	6	5	20	25	1	2	30	Intent to treat; missing data imputed as failure
F	Horta et al. ⁵⁸	RCT	Prospective randomization at individual level. Significant differences in baseline age, months with HIV, CD4 cell count (I) 188 cells/mm ³ v (C) 257 cells/mm ³ , weight & history of prior HAART.	Variable (median I: 28.7 & C: 37.5 months)	5	11	18	1	9	26	35	Excluded missing data

G	Idoko et al. ⁵⁹	Observational study	Prospective assignment to study arms, not specified if randomized. Compared with standard of care, (I) had more males, lower baseline HIV load (median 71,377 copies/ml versus 149,215 copies/ml in control); more pulmonary tuberculosis & less hepatitis; statistical tests not reported.	6, 12 months	N/R	N/R	N/R	N/R	N/R	N/R	20; overall retention: I1, 78%; C, 81%	On-treatment analysis; missing data excluded
H	Lanzafame et al. ¹⁰⁰	Controlled cohort study	Observational study comparing prisoners on DOT-HAART with outpatients treated by same medical staff in the study period. Baseline age, gender, & CD4 cell count similar, but baseline mean HIV VL higher in (I) group (102,366 copies/ml versus 28,641 copies/ml, p=0.05).	3, 6 months	N/R	N/R	N/R	N/R	0	0	0	N/R
I	Lucas et al. ⁶⁰	Matched controlled cohort study	Non-randomized control matched by time of HAART initiation from Johns Hopkins HIV cohort & stratified by IDU-methadone (C1), IDU-no-methadone (C2), & non-IDU (C3). Inclusion criteria same for all groups. No significant differences in baseline demographic, virologic & immunologic measures, but (I) more likely to have started HAART regimen later, have once-daily regimen, & to have regimen without non-nucleoside reverse transcriptase inhibitor.	6, 12 months	0	N/R	46	N/R	1	N/R	(I) only: 48%	Intent to treat; missing data imputed as virologic failure; for missing CD4 data, last observation carried forward. Also excluded missing data as secondary analysis.
J	Macalino et al. ⁶¹	RCT	Block-randomization at individual level. Baseline demographic, virologic & immunologic measures similar between arms, but no statistical test reported.	1, 3 months	5	0	7	14	7	2	17	Cross-over permitted from (C) to (I) at 3 months. Analysis limited to 3 month endpoint. Intent to treat; individuals with at least one follow-up measure used to fit models, using repeated measures to estimate time-averaged treatment effect
K	Munoz et al. ⁹⁹	Matched controlled cohort study	Non-randomized control groups prospectively matched by CD4, age & enrollment criteria (female, those with tuberculosis). No significant baseline differences in virologic or immunologic measures, but (I) had worse indicators of baseline socioeconomic status & less substance use (differences controlled for in primary outcome).	12 months	0	10	0	10	10	25	23	Intent to treat; missing data imputed as failure for virologic endpoint & 0% adherence. Analysis of CD4 cell count excluded missing data.
L	Nachega et al. ⁸⁵	RCT	Randomization 1:1 at individual level. No significant differences in baseline virologic & immunologic measures.	12 months	7	7	31	29	7	15	47	Intent to treat; missing data imputed as failure; on-treatment analysis also performed.

M	Pearson et al. ⁶⁵	RCT	Randomization at individual level. No significant differences in baseline demographic, virologic & immunologic measures.	1.5, 6, 12 months	2	7	0	0	13	18	21	Intent to treat; missing data imputed as failure (i.e. 0% adherence); intent to treat also conducted without imputation for missing data on adherence & mean change in CD4 cell count
N	Sarna et al. ⁸⁶	RCT	Block randomization 1:1 at individual level. Similar sociodemographic, immunologic & virologic measures at baseline; statistical tests not reported.	6, 12, 18 months	5	3	5	7	13	10	22	Intent to treat; handling of missing data not reported
O	Taiwo et al. ⁹⁸	RCT	Randomization 1:1 at individual level. No significant differences in baseline demographic, immunologic or virologic measures.	3, 6 months	N/R; LTF & death rates similar in two groups	N/R	N/R	N/R	N/R	N/R	13; on-treatment at 6 months: I: 88%; C: 87%	Intent to treat ; missing data imputed as failure; on-treatment analysis also performed
P	Tinoco et al. ⁶⁶	Controlled cohort study	Intervention comprised of patients consecutively admitted to two welfare facilities; (C) selected from IDUs seen at outpatient clinics staffed by same physicians who referred (I) group and prospectively matched by date of outpatient visit (i.e. same day of admission to welfare home). No significant baseline differences in age, gender, time from HIV diagnosis & time from AIDS diagnosis, but (I) had significantly lower educational status, lower baseline body mass index & weight, & lower Karnofsky index score.	3, 6, 9 months	0	0	N/R	N/R	11	4	7; of note, 4 of 51 initially referred to (I) had rapidly fatal disease & not included in analysis	Patients without missing endpoint data excluded from analysis
Q	Wohl et al. ⁶⁹	RCT	Block randomization at individual level. Similar baseline sociodemographic characteristics; (I) had higher baseline viral load & lower CD4 cell counts compared to (C1), statistical tests not reported.	6 months	1	(C1): 20	18	(C1): 7	1	(C1): 2	23 (among participants included for meta-analysis)	Intent to treat & on-treatment analysis performed. Participants with missing values considered to have treatment failure

RCT, randomized clinical trial; I, intervention; C, control; DOT, directly observed therapy; F/U, months follow-up after enrollment; LTF, lost to follow-up; DISC, discontinued study (excluding LTF & deaths); DIED, deaths; ATTR, overall attrition (LTF, DISC, & DIED for both arms); N/R, not recorded; IDU, injection drug users