## THE LANCET HIV

## Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

Supplement to: W Z, Tang Z, Mao Y, et al. Testing and linkage to HIV care in China: a cluster-randomised trial. *Lancet HIV* 2017; published online August 31. http://dx.doi.org/10.1016/S2352-3018(17)30131-5.

## APPENDIX Testing and Linkage to HIV Care in China: A Cluster-Randomized Trial

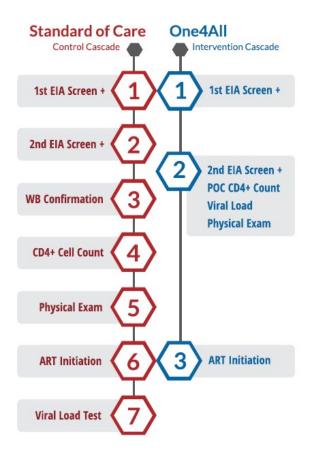
S1 Table. Study hospital characteristics compared between the One4All intervention (n=6 hospitals) and SOC control (n=6 hospitals) arms, Guangxi, China, 2013.

Characteristics	One4All (N=6)	SOC (N=6)	p-Value <sup>a</sup>
Number of beds		· · ·	
Mean (SD)	688 (416)	423 (106)	0.16
Median	585	386	
Minimum-Maximum	300–1,500	318–600	<u>.</u>
Number of personnel	<b>510 (303)</b>	500 (50)	0.20
Mean (SD)	719 (292)	583 (56)	0.29
Median	695	578	
Minimum—Maximum	370–1,200	507–663	
Number of outpatients in 2012	267 011 (175 612)	266 (26 (40 201)	0.20
Mean (SD) Median	367,911 (175,613) 407,221	266,626 (49,391)	0.20
Minimum-Maximum	137,243–632,700	268,573 187,254–331,294	
Number of discharged patients in 2012	137,243-032,700	107,234-331,294	•
Mean (SD)	29 750 (12 257)	20.726 (4.672)	0.20
Median	28,750 (13,357) 24,961	20,736 (4,672) 19,463	0.50
Minimum-Maximum	13,891–52,000	16,143–26,451	
Number of outpatients from January to June 2013	13,891–32,000	10,143-20,431	
Mean (SD)	164,031 (114,167)	143,774 (30,098)	0.68
Median	166,270	148,783	0 08
Minimum-Maximum	25,280–329,600	96,381–174,122	
Number of doctors	23,200 323,000	70,301 174,122	
Mean (SD)	218 (83)	155 (56)	0.15
Median	213	133 (30)	0 13
Minimum-Maximum	122–320	114–262	
Number of nurses	122 320	111 202	<u>-</u>
Mean (SD)	317 (134)	247 (21)	0.23
Median	291	242	0 20
Minimum-Maximum	173–554	225–285	
Number of pharmacists			
Mean (SD)	75 (77)	25 (5)	0.14
Median	52	26	
Minimum–Maximum	19–226	19-31	
Number of laboratory personnel			
Mean (SD)	22 (6)	21 (4)	0.73
Median	21	21	
Minimum–Maximum	17–32	17–27	
Number of other professional personnel			•
Mean (SD)	8 (15)	36 (44)	0.16
Median	0	18	
Minimum-Maximum	0–37	0–97	
Number of beds for HIV/AIDS care			
Mean (SD)	14 (13)	15 (10)	0.90
Median	13	14	
Minimum–Maximum	0–30	0–25	••••
Number of doctors for HIV/AIDS care			
Mean (SD)	2 (2)	3 (2)	0.71
Median	2	2	
Minimum–Maximum	1–5	1–5	
Number of nurses for HIV/AIDS care			
Mean (SD)	3 (3)	4 (4)	0.70
Median	2	2	
Minimum–Maximum	1–10	1–10	
Number of laboratory personnel for HIV/AIDS care			
Mean (SD)	3 (2)	0 (0)	0.002
Median	4	0	
Minimum–Maximum  Number of other professional personnel for HIV/AIDS care	0–5	0–1	

Mean (SD)	1(1)	0 (0)	0.54
Median	0	0	
Minimum–Maximum	0–3	0-1	
Duration between initial HIV screening and receipt of all of the			
following: WB, CD4 testing and counselling; under SOC in the 6			
months prior to the start of the study (days)			
Mean (SD)	40 (11)	43 (17)	0.75
Median	40	41	
Minimum–Maximum	28–59	22–69	<u>-</u>
Proportion of patients who receive WB, CD4, and counselling			
within 30 days of screening HIV-reactive			
Mean (SD)	19.5 (14.9)	19.6 (14.1)	0.99
Median	12.1	15.2	
Minimum–Maximum	6.1-43.8	5·1-43·3	<u>.</u>
Proportion of patients who initiate ART within 90 days of screening			
HIV-reactive			
Mean (SD)	14.1 (7.4)	16.1 (7.9)	0.67
Median	13.3	17.7	
Minimum-Maximum	5.6–27.3	2.6-24.1	

One4All=One4All intervention arm, SOC=standard of care control arm, SD=standard deviation, HIV=human immunodeficiency virus, AIDS=acquired immune deficiency syndrome, WB=Western blot, ART=antiretroviral therapy;

\*\*p-values were calculated using t test\*



F1 Figure. Diagram depicting differences in the HIV care cascade between control (standard of care [SOC], n=246, red) and intervention (One4All strategy, n=232, blue) study arms, Guangxi, China, 2014–2016. SOC Steps 2, 3, 4, 5, and 7 are all consolidated into a single One4All Step 2. This figure has been adapted with permission from Mao and colleagues.<sup>7</sup>

S2 Table. Participant self-reported risk behaviors at baseline compared between the One4All (intervention, n=232) and SOC (control, n=246) arms, Guangxi, China, 2014–2016.

Characteristics	One4All (N=232)	SOC (N=246)	<i>p</i> -Value
Consistent condom use in the previous 3 months <sup>a</sup>			
No sexual behavior	152 (65.5%)	164 (66.7%)	0.73
No (not consistently using condoms)	73 (31.5%)	78 (31.7%)	
Yes	7 (3.0%)	4 (1.6%)	
Number of sexual partners in the previous 3 months <sup>b</sup>	· · · ·	, ,	
(only among those not consistently using condoms)			
1 to 4	73 (100.0%)	71 (91.0%)	0.06
5 or more	0 (0.0%)	7 (9.0%)	
Number of times using illegal drugs or prescription drugs for non-medical reasons			
in the previous 3 months <sup>c</sup>			
0	227 (97.8%)	245 (99.6%)	
1 to 9	2 (0.9%)	0(0.0%)	
10 to 19	1 (0.4%)	1 (0.4%)	
20 or more	2 (0.9%)	0(0.0%)	
Shared drug injecting equipment in the previous 3 months <sup>c</sup>	` ′	. ,	
No drug injecting	227 (97.8%)	245 (99.6%)	
No (did not share)	5 (2.2%)	1 (0.4%)	

One4All=One4All intervention arm, SOC=standard of care control arm;

S3 Table. MedDRA-coded causes of post-enrollment deaths for the One4All (intervention, n=232) and SOC (control, n=246) study arms and overall (N=478), Guangxi, China, 2014–2016.

System Organ Class/	One4all	SOC	Overall
Preferred Term <sup>a</sup>	(N=232)	(N=246)	(N=478)
Known Cause of Death	61 (26·3%)	93 (37.8%)	154 (32·2%)
Unknown Cause of Death	4 (1.7%)	22 (8.9%)	26 (5.4%)
Infections and infestations	24 (10·3%)	37 (15.0%)	61 (12.8%)
Lung infection	6 (2.6%)	14 (5.7%)	20 (4.2%)
Pneumonia	8 (3.4%)	2 (0.8%)	10 (2·1%)
Pneumocystis jirovecii pneumonia	6 (2.6%)	1 (0.4%)	7 (1.5%)
Acute HIV infection	1 (0.4%)	4 (1.6%)	5 (1.0%)
Tuberculosis	1 (0.4%)	2 (0.8%)	3 (0.6%)
Pneumonia bacterial	1 (0.4%)	2 (0.8%)	3 (0.6%)
Acquired immunodeficiency syndrome	0(0.0%)	3 (1.2%)	3 (0.6%)
Herpes virus infection	0(0.0%)	2 (0.8%)	2 (0.4%)
Extrapulmonary tuberculosis	0 (0.0%)	2 (0.8%)	2 (0.4%)
Meningitis cryptococcal	0(0.0%)	1 (0.4%)	1 (0.2%)
Meningitis	0(0.0%)	1 (0.4%)	1 (0.2%)
HIV wasting syndrome	0(0.0%)	1 (0.4%)	1 (0.2%)
Candida infection	0(0.0%)	1 (0.4%)	1 (0.2%)
Septic shock	0 (0.0%)	1 (0.4%)	1 (0.2%)
Penicilliosis	1 (0.4%)	0 (0.0%)	1 (0.2%)
Respiratory, thoracic and mediastinal disorders	16 (6.9%)	20 (8·1%)	36 (7.5%)
Respiratory disorder	8 (3.4%)	11 (4.5%)	19 (4.0%)
Respiratory failure	8 (3.4%)	7 (2.8%)	15 (3·1%)
Lung disorder	0(0.0%)	1 (0.4%)	1 (0.2%)
Bronchitis chronic	0 (0.0%)	1 (0.4%)	1 (0.2%)
Neoplasms benign, malignant and unspecified	4 (1.7%)	8 (3·3%)	12 (2.5%)
(including cysts and polyps)	4 (11/0)	0 (3.3 /0)	12 (2.3 /0)
Neoplasm malignant	1 (0.4%)	3 (1.2%)	4 (0.8%)
Gastric cancer	0 (0.0%)	3 (1.2%)	3 (0.6%)
Hepatic cancer	1 (0.4%)	1 (0.4%)	2 (0.4%)
Neoplasm	1 (0·4%)	0 (0.0%)	1 (0.2%)

<sup>&</sup>lt;sup>a</sup> Adjusted *p*-value was calculated by referring observed chi-square to distribution of chi-square values obtained by randomly permuting observed treatments over hospitals. More specifically, it is the proportion of "permuted" chi-square values at least as large as observed; <sup>b</sup> *p*-value was calculated from adjusted chi-square test;

<sup>&</sup>lt;sup>c</sup> Statistical test and *p*-value were not generated due to the very low numbers of drug users in both arms

Lung neoplasm malignant	0 (0.0%)	1 (0.4%)	1 (0.2%)
Gastrointestinal carcinoma	1 (0.4%)	0 (0.0%)	1 (0.2%)
Cardiac disorders	4 (1.7%)	7 (2.8%)	11 (2.3%
Cardiac failure congestive	0 (0.0%)	4 (1.6%)	4 (0.8%)
Cardiopulmonary failure	2 (0.9%)	1 (0.4%)	3 (0.6%)
Cardiac failure	2 (0.9%)	0 (0.0%)	2 (0.4%)
Myocardial infarction	0 (0.0%)	1 (0.4%)	1 (0.2%)
Cardiac disorder	0 (0.0%)	1 (0.4%)	1 (0.2%)
Gastrointestinal disorders	2 (0.9%)	8 (3.3%)	10 (2·1%
Gastrointestinal disorder	2 (0.9%)	4 (1.6%)	6 (1.3%)
Impaired gastric emptying	0 (0.0%)	2 (0.8%)	2 (0.4%)
Gastrointestinal haemorrhage	0(0.0%)	1 (0.4%)	1 (0.2%)
Diarrhoea	0 (0.0%)	1 (0.4%)	1 (0.2%)
Nervous system disorders	4 (1.7%)	5 (2.0%)	9 (1.9%)
Cerebrovascular disorder	4 (1.7%)	2 (0.8%)	6 (1.3%)
Leukoencephalopathy	0(0.0%)	1 (0.4%)	1 (0.2%)
Hepatic encephalopathy	0 (0.0%)	1 (0.4%)	1 (0.2%)
Cerebral infarction	0 (0.0%)	1 (0.4%)	1 (0.2%)
Hepatobiliary disorders	2 (0.9%)	2 (0.8%)	4 (0.8%)
Hepatic cirrhosis	2 (0.9%)	1 (0.4%)	3 (0.6%)
Hepatorenal syndrome	0 (0.0%)	1 (0.4%)	1 (0.2%)
General disorders and administration site conditions	0 (0.0%)	4 (1.6%)	4 (0.8%)
Multi-organ failure	0 (0.0%)	3 (1.2%)	3 (0.6%)
Sudden cardiac death	0 (0.0%)	1 (0.4%)	1 (0.2%)
Injury, poisoning and procedural complications	2 (0.9%)	0 (0.0%)	2 (0.4%)
Road traffic accident	1 (0.4%)	0 (0.0%)	1 (0.2%)
Overdose	1 (0.4%)	0 (0.0%)	1 (0.2%)
Metabolism and nutrition disorders	1 (0.4%)	1 (0.4%)	2 (0.4%)
Malnutrition	0 (0.0%)	1 (0.4%)	1 (0.2%)
Diabetes mellitus	1 (0.4%)	0 (0.0%)	1 (0.2%)
Endocrine disorders	0 (0.0%)	1 (0.4%)	1 (0.2%)
Endocrine disorder	0 (0.0%)	1 (0.4%)	1 (0.2%)
Blood and lymphatic system disorders	1 (0.4%)	0 (0.0%)	1 (0.2%)
Anaemia	1 (0.4%)	0 (0.0%)	1 (0.2%)
Renal and urinary disorders	1 (0.4%)	0 (0.0%)	1 (0.2%)
Diabetic nephropathy	1 (0.4%)	0 (0.0%)	1 (0.2%)

One4All=One4All intervention arm, SOC=standard of care control arm, HIV=human immunodeficiency virus; aMedDRA version 17.0 or higher used.