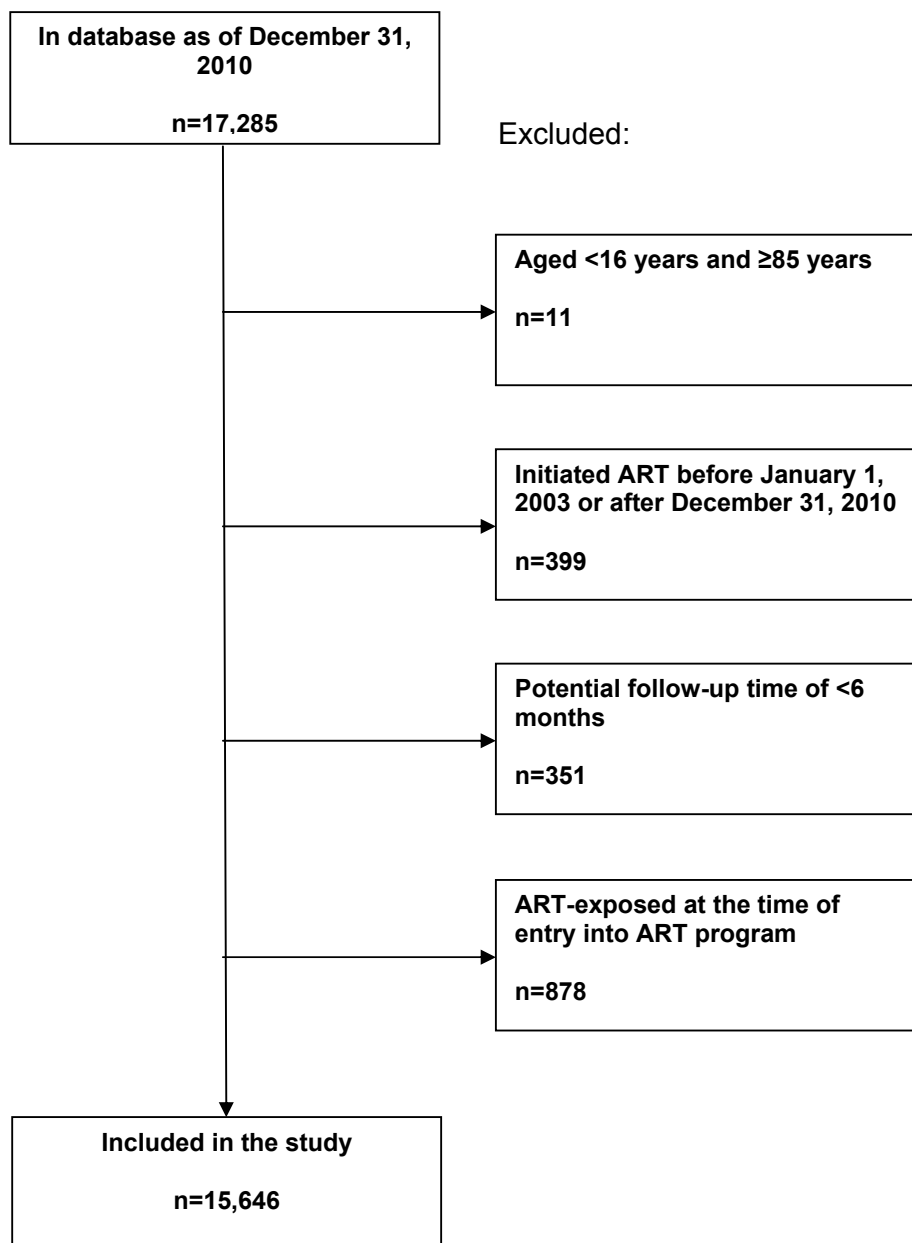


SDC, Figure S1. Selection of study population.



Abbreviations: ART, antiretroviral treatment

SDC, Table S1. Characteristics of patients in antiretroviral treatment programs included in our study, overall and stratified by TB status at ART start.

Characteristic	All n=15,646	Presenting with TB n=1,052	Presenting without TB n=14,594	P value
Age at start of ART, median (IQR), years	34 (29-40)	34 (29-39)	34 (29-40)	0.41
Female sex, n (%)	10,622 (67.89)	621 (59.03)	10,001 (68.53)	<0.0001
Any TB at start of ART, n (%)	1,052 (6.72%)	1,052 (100)	0	-
Site of TB, n (%)				-
Pulmonary	718 (4.4)	718 (68.25)	0	
Extrapulmonary	334 (2.1)	334 (31.75)	0	
CD4 cell count at ART start, median (IQR), cells/ μ l	98 (41-161)	45 (18-98)	102 (45-163)	<0.0001
No. of observations (%)	12,601 (80.54)	821 (78.04)	11,780 (80.72)	
Imputed values	94 (40-161)	44 (18-95)	98 (43-164)	
HIV RNA viral load at ART start, median (IQR), log copies/ml	4.85 (4.38-5.41)	4.86 (4.37-5.47)	4.85 (4.38-5.41)	0.62
No. of observations (%)	5,608 (35.84)	319 (30.32)	5,289 (36.24)	
Imputed values	4.68 (4.21-5.20)	4.76 (4.31-5.27)	4.68 (4.20-5.20)	
WHO clinical stage, n (%)				<0.0001
No. of observations (%)	10,633 (68.0)	1,015 (96.48)	9,618 (65.9)	
I and II	1,559 (14.7)	42 (4.14)	1,517 (15.77)	
III	6,085 (57.2)	574 (56.55)	5,511 (57.3)	
IV	2,989 (28.11)	399 (39.31)	2,590 (26.93)	
Imputed values for stage IV, %	28.80	39.70	28.0	
Treatment program, n (%)				-
Thembalethu	8,404 (53.71)	531 (50.48)	7,873 (53.95)	
Khayelitsha	6,121 (39.12)	506 (48.09)	5,615 (38.47)	
Tygerberg	1,121 (7.16)	15 (1.43)	1,106 (7.58)	

Abbreviations: ART, antiretroviral therapy; TB, tuberculosis

SDC, Table S2. Associations with CD4 cell count changes after starting antiretroviral treatment (ART). Results are presented as difference (CD4 cell count/ μ l/6 months).

Characteristic	Unadjusted		Adjusted	
	diff. (95% CI)	P value	diff. (95% CI)	P value
TB at the start of ART				
First 6 months after ART start ¹	-32.97 (-46.30 to -19.64)	<0.0001	-3.25 (-15.32 to 8.81)	0.58
>6 months after ART start ¹	0.20 (-5.06 to 5.46)	0.94	6.51 (1.97 to 11.06)	0.006
Female sex	16.51 (13.97 to 19.04)	<0.0001	2.87 (0.60 to 5.14)	0.014
Age at the start of ART, years				
16-24	1.0 (Ref)		1.0 (Ref)	
25-49	-13.06 (-17.31 to -8.81)	<0.0001	-6.51 (-10.24 to -2.78)	<0.0001
≥ 50	-19.27 (-25.47 to -13.06)	<0.0001	-4.93 (-10.49 to 0.63)	0.08
CD4 cell count at ART start, cells/ μ l				
<50	1.0 (Ref)		1.0 (Ref)	
50-199	20.92 (17.74 to 24.11)	<0.0001	-34.75 (-37.47 to -32.03)	<0.0001
>200	18.90 (13.61 to 24.18)	<0.0001	-69.28 (-74.15 to -64.41)	<0.0001
WHO clinical stage at ART start				
I and II	1.0 (Ref)		1.0 (Ref)	
III	-5.55 (-9.07 to -2.04)	<0.0001	0.97 (-2.19 to 4.15)	0.53
IV	-6.61 (-10.21 to -3.01)	<0.0001	3.62 (0.01 to 7.24)	0.049

¹ An interaction term between time on ART and presenting with TB at ART start was included in the model.

Models were adjusted for age, sex, CD4 cell count at ART start, current CD4 cell count, time on ART, WHO clinical stage, and treatment site.

Abbreviations: ART, antiretroviral therapy; diff., difference; TB, tuberculosis; 95% CI, 95% confidence interval