Supplementary Table S1. Characteristics of children with HIV infection receiving ART, *n* (%)

Variables	Study Population (*n* = 441)
Age at HIV diagnosis, months	
≤ 24	124 (28.1)
25–60	173 (39.2)
> 60	141 (32.0)
Unknown	3 (0.7)
Time period between HIV diagnosis and ART initiation, months	
≤ 6	298 (67.6)
> 6	140 (31.7)
Unknown	3 (0.7)
Age at ART initiation, months	
≤ 24	80 (18.1)
25–60	153 (34.7)
> 60	208 (47.2)
Sex	
Male	231 (52.4)
Female	210 (47.6)
WHO clinical stage	
I	253 (57.4)
II	45 (10.2)
III	87 (19.7)
IV	56 (12.7)
Baseline $CD4^+$ T cell count, cells/μL	
≤ 500	261 (59.2)
> 500	173 (39.2)
Baseline $CD8^+$ T cell count, cells/μL	
≤ 760	65 (14.7)
761–1,138	76 (17.2)
> 1,138	292 (66.2)

Note. ART, antiretroviral therapy. HIV, human immunodeficiency virus. WHO, World Health Organization.

Supplementary Table S2. Factors associated with mortality among HIV-infected children

Factors	HR (95% *CI*)	P_{HR}	aHR (95% *CI*)	P_{aHR}
Age at HIV diagnosis, months				
≤ 24	1	–	1	–
25–60	0.717 (0.298–1.724)	0.458	0.348 (0.080–1.510)	0.159
> 60	0.684 (0.259–1.802)	0.442	1.005 (0.060–16.952)	0.997
Time period between HIV diagnosis and ART initiation, months				
≤ 6	1	–	1	–
> 6	0.793 (0.335–1.880)	0.599	1.368 (0.398–4.700)	0.619
Age at ART initiation, months				
≤ 24	1	–	1	–
25–60	1.124 (0.427–2.959)	0.813	2.718 (0.484–15.261)	0.256
> 60	0.567 (0.196–1.642)	0.296	0.375 (0.020–7.054)	0.512
Sex				
Male	1	–	1	–
Female	1.440 (0.674–3.079)	0.346	1.852 (0.825–4.157)	0.135
WHO clinical stage				
I/II	1	–	1	–
III/IV	9.332 (3.530–24.668)	< 0.001	8.223 (2.583–26.180)	0.000
Baseline $CD4^+$ T cell count, cells/μL				
≤ 500	1	–	1	–
> 500	0.197 (0.059–0.656)	0.008	0.396 (0.104–1.514)	0.176
Baseline $CD8^+$ T cell count, cells/μL				
≤ 760	1	–	1	–
761–1,138	1.765 (0.543–5.737)	0.345	3.324 (0.913–12.108)	0.069
> 1,138	0.628 (0.204–1.932)	0.417	0.862 (0.248–2.999)	0.815
Baseline ART regimens				
LPV/r-based	1	–	1	–
NVP-based	3.782 (1.272–11.248)	0.017	4.350 (1.193–15.860)	0.026
EFV-based	1.415 (0.399–5.019)	0.591	1.702 (0.396–7.320)	0.475
TB infection				
Yes	1	–	1	–
No	0.373 (0.112–1.240)	0.108	0.705 (0.188–2.648)	0.605
Opportunistic infection				
Yes	1	–	1	–
No	0.310 (0.145–0.661)	0.002	1.182 (0.466–3.002)	0.725

Note. ART, antiretroviral therapy. HIV, human immunodeficiency virus. LPV/r, ritonavir-boosted lopinavir. NVP, nevirapine. EFV, efavirenz. WHO, World Health Organization. TB, tuberculosis. HR, hazard ratio. aHR, adjusted hazard ratio.

Supplementary Table S3. The mortality of children with HIV infection, group by ART regimen and WHO clinical stage

Baseline ART regimen	WHO clinical stage	Total children, *n*	Dead, *n* (%)	Person-years	Dead/1,000 Persons-years (95% *CI*)	*P*#
LPV/r-based	I/II	99	1 (1.0)	498.25	2.0 (−1.8−5.8)	0.056
	III/IV	32	3 (9.4)	216.47	13.9 (−1.4−29.1)	
NVP-based	I/II	98	3 (3.1)	532.27	5.6 (−0.6−11.9)	< 0.001
	III/IV	60	14 (23.3)	310.28	45.1 (22.1−68.2)	
EFV-based	I/II	101	1 (1.0)	400.47	2.5 (−2.3−7.3)	0.009
	III/IV	51	5 (9.8)	225.93	22.1 (3.2–41.0)	
Total		441	27 (6.1)	2183.67	12.4 (7.8−16.9)	

Note. ART, antiretroviral therapy. HIV, human immunodeficiency virus. LPV/r, ritonavir-boosted lopinavi. NVP, nevirapine. EFV, efavirenz. WHO, World Health Organization. #*P* by log-rank test.

Supplementary Table S4. Comparison of mortality of HIV-infected children, group by WHO clinical stage

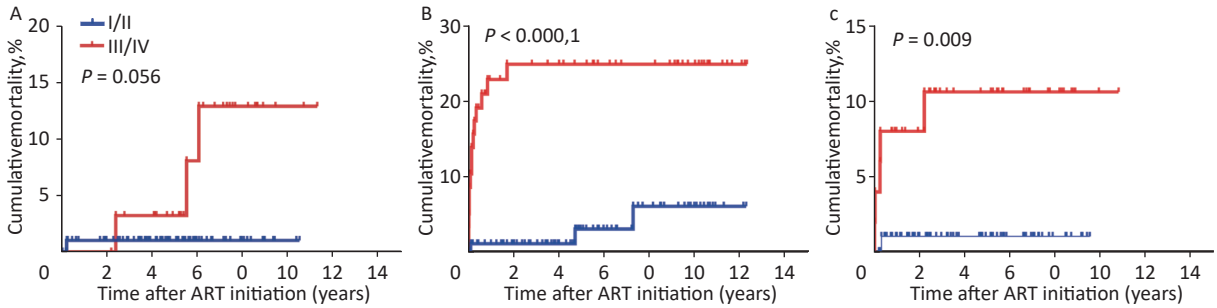
WHO clinical stage	Baseline ART regimen	Total children, *n*	Dead, *n* (%)	Person-years	Dead/1000 Persons-years (95% *CI*)	*p*
I/II	LPV/r-based	99	1 (1.0)	498.25	2.0 (−1.8 to 5.8)	0.521
	NVP-based	98	3 (3.1)	532.27	5.6 (−0.6 to 11.9)	
	EFV-based	101	1 (1.0)	400.47	2.5 (−2.3 to 7.3)	
III/IV	LPV/r-based	32	3 (9.4)	216.47	13.9 (−1.4 to 29.1)	0.018
	NVP-based	60	14 (23.3)	310.28	45.1 (22.1 to 68.2)	
	EFV-based	51	5 (9.8)	225.93	22.1 (3.2 to 41.0)	
Total		441	27 (6.1)	2183.67	12.4 (7.8 to 16.9)	

Note. HIV, human immunodeficiency virus. LPV/r, ritonavir-boosted lopinavir. NVP, nevirapine. EFV, efavirenz. WHO, World Health Organization.

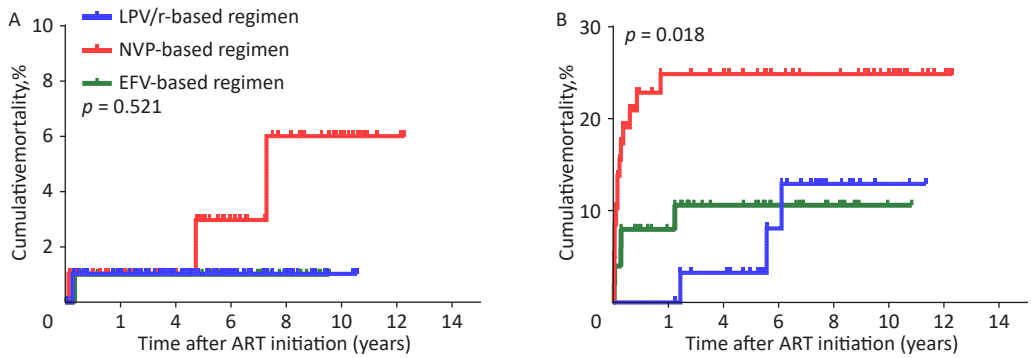
Supplementary Table S5. Comparison of mortality of HIV-infected children receiving different ART regimen, group by WHO clinical stage

WHO clinical stage	ART regimen	LPV/r-based		NVP-based		EFV-based	
		χ^2	*p*	χ^2	*p*	χ^2	*p*
I/II	LPV/r-based	–	–	0.853	0.356	0.001	0.980
	NVP-based	0.853	0.356	–	–	0.682	0.409
	EFV-based	0.001	0.980	0.682	0.409	–	–
III/IV	LPV/r-based	–	–	5.193	0.023	0.889	0.346
	NVP-based	5.193	0.023	–	–	3.978	0.046
	EFV-based	0.889	0.346	3.978	0.046	–	–

Note. ART, antiretroviral therapy. HIV, human immunodeficiency virus. LPV/r, ritonavir-boosted lopinavir. NVP, nevirapine. EFV, efavirenz. WHO, World Health Organization.



Supplementary Figure S1. Kaplan-Meier analysis of cumulative mortality in HIV-infected children, grouped by ART regimen and WHO clinical stage. (A) Children received LPV/r-based regimen. (B) Children received NVP-based regimen. (C) Children received EFV-based regimen. The statistical significance was measured by log-rank test. ART, antiretroviral therapy. HIV, human immunodeficiency virus. LPV/r, ritonavir-boosted lopinavir. NVP, nevirapine. EFV, efavirenz. WHO, World Health Organization.



Supplementary Figure S2. Kaplan-Meier analysis of cumulative mortality of children with HIV infection, grouped by WHO clinical stage. (A) children with HIV infection were in WHO clinical stage I/II. (B) children with HIV infection were in WHO clinical stage III/IV. HIV, human immunodeficiency virus, WHO, World Health Organization.