

Appendix 1**S1 Table** - Demographic characteristics of treatment-naïve patients and treatment-experienced patients at baseline

Demographic characteristics	Treatment-naïve patients (n=103)	Treatment-experienced patients (n=199)	p-value
Sex, n (%)			
Male	67 (65.0%)	143 (71.9%)	CS: 0.222
Female	36 (35.0%)	56 (28.1%)	
Age at baseline, years			
Mean \pm SD	43.7 \pm 12.6	51.9 \pm 11.9	
Median [min-max]	43.0 [19.0-71.0]	50.0 [25.0-92.0]	MW <0.0001
<50 years	67 (65.0%)	93 (46.7%)	CS: 0.003
\geq 50 years	36 (35.0%)	106 (53.3%)	

CS, Chi-Square Test; MW, Mann-Whitney Test; SD, standard deviation.

S2 Table - Non-AIDS related comorbidities of treatment-naïve versus treatment-experienced patients

Non-AIDS related comorbidity (NARC) at baseline	Treatment-naïve patients (n=103)	Treatment-experienced patients (n=199)	p-value
Number of NARC at baseline			
N	38	123	MW: 0.0077
Mean±SD	1.6±0.9	2.2±1.2	
Median (min-max)	1.0 (1.0-5.0)	2.0 (1.0-6.0)	
IQR [Q3-Q1]	1.0 [2.0-1.0]	2.0 [3.0-1.0]	
Missing values	0	0	
0	65 (63.1%)	76 (38.2%)	CS: 0.0001
1	23 (22.3%)	48 (24.1%)	
2	9 (8.7%)	31 (15.6%)	
≥3	6 (5.8%)	44 (22.1%)	
NARC at baseline, n (%)			
Arterial Hypertension	16 (42.1%)	52 (42.3%)	CS: 0.9851
Hypercholesterolemia	11 (28.9%)	60 (48.8%)	CS: 0.0314
Diabetes mellitus	5 (13.2%)	23 (18.7%)	CS: 0.4309
Depression	7 (18.4%)	21 (17.1%)	CS: 0.8481
Renal failure	4 (10.5%)	15 (12.2%)	FS: >0.9999
Chronic anxiety	3 (7.9%)	9 (7.3%)	FS: >0.9999

Non-AIDS related comorbidity (NARC) at baseline	Treatment-naïve patients (n=103)	Treatment-experienced patients (n=199)	p-value
Malignancy	1 (2.6%)	5 (4.1%)	FS: >0.9999
Bronchitis	0 (0.0%)	6 (4.9%)	FS: 0.3371
Osteoporosis	0 (0.0%)	4 (3.3%)	FS: 0.5735
Renal lithiasis	1 (2.6%)	1 (0.8%)	FS: 0.4175
Emphysema	0 (0.0%)	1 (0.8%)	FS: >0.9999

CS, Chi-Square Test; FS, Fisher Exact Test; MW, Mann-Whitney; NARC, Non-AIDS related comorbidity.

Note: The number and type of non-AIDS-related comorbidities were calculated based on the number of patients with at least one reported non-AIDS-related comorbidity.

S3 Table - Associations between time to discontinuation with RAL-based treatment and independent variables of interest

	Survival median	p-value (log-rank test)	HR for discontinuation	95%CI for HR	48 months rate (%) (maintenance of treatment)
Sex					
Female	49.0	0.430	1.246	[0.718; 2.163]	67.7%
Male (ref.)	NA				76.2%
Age, years					
<50 years	49.0	0.093	1.576	[0.920; 2.700]	70.7%
≥50 years (ref.)	NA				78.1%
Number of previous ART regimens					
0	NA	0.104	2.075	[0.715; 6.021]	71.5%
1-2	NA		2.394	[0.833; 6.881]	69.0%
3-4	49.0		0.978	[0.276; 3.466]	82.2%
≥5 (ref.)					86.2%
CD4 counts at baseline					
≤200 cells/mm ³	NA	0.428	1.538	[0.775; 3.054]	59.1%
201-500 cells/mm ³	49.0		1.302	[0.721; 2.352]	73.9%
>500 cells/mm ³ (ref.)	NA				80.4%

	Survival median	p-value (log-rank test)	HR for discontinuation	95%CI for HR	48 months rate (%) (maintenance of treatment)
Late diagnosis (<350 cells/mm ³)	NA	0.817	0.938	[0.544; 1.617]	73.2%
Non-late diagnosis (≥ 350 cells/mm ³) (ref.)	49.0				75.1%
CDC HIV Stage of disease					
A	NA	0.137	2.715	[0.970; 7.596]	73.9%
B	49.0		2.545	[0.744; 8.700]	69.5%
C (ref.)	NA				87.8%
Plasma HIV – RNA, viral load at baseline					
≤ 50 copies/mL	49.0	0.195	0.709	[0.419; 1.200]	78.7%
> 50 copies/mL (ref.)	NA				69.5%
Time between diagnosis and initiation of RAL therapy, months					
	-	-	0.997	[0.994; 1.000]	-

	Survival median	p-value (log-rank test)	HR for discontinuation	95%CI for HR	48 months rate (%) (maintenance of treatment)
Time between last ART and initiation of RAL therapy, months	-	-	1.016	[1.002; 1.030]	-

ART, antiretroviral therapy; CI, confidence interval; HR, hazard ratio; RAL, raltegravir.

Ref: Category versus the one is making comparisons.

S4 Table - Association between the total score of satisfaction with RAL-based treatment for continuing RAL users and independent (categorical) variables of interest

Total Score	Variables of interest			p-value	
Treatment Satisfaction (Total Score)	Male (n=210)	Female (n=92)		MW: 0.0191	
	N	172	71		
	Mean	55.09	56.27		
	Median	57.00	59.00		
	Standard deviation	7.04	7.71		
	Minimum	2.00	13.00		
	Maximum	60.00	60.00		
	Missing values	38	21		
Treatment Satisfaction (Total Score)	CD4 <350 cells/mm³ (n=150)	CD4 ≥350 cells/mm³ (n=112)		MW: 0.7495	
	N	121	90		
	Mean	55.55	55.74		
	Median	58.00	58.00		
	Standard deviation	7.65	6.04		
	Minimum	2.00	29.00		
	Maximum	60.00	60.00		
	Missing values	29	22		
Treatment Satisfaction (Total Score)	Stage A (n=189)	Stage B (n=33)	Stage C (n=53)	KW: 0.7585	
	N	149	25		49
	Mean	55.56	53.72		56.33
	Median	58.00	57.00		58.00

Standard deviation	6.90	9.61	5.05
Minimum	2.00	24.00	32.00
Maximum	60.00	60.00	60.00
Missing values	40	8	4

MW, Mann-Whitney Test; KW, Kruskal-Wallis Test.

Note: Correlation between the total score of satisfaction with RAL-based treatment for continuing RAL users were also conducted for the following quantitative variables: age at baseline, HIV infection duration, CD4 counts, viral load, duration of RAL-based therapy, time between diagnosis and initiation of RAL-based treatment, and time between previous ART regimen and initiation of RAL-based treatment. None of the remaining variables showed statistically significant differences ($p > 0.05$).

S5 Table - Association between the questionnaire items of satisfaction with RAL-based treatment for sex (independent variable)

	Male	Female	p-value
N	172	72	
Item 1: Current Treatment			
Mean ± SD	5.70 ± 0.70	5.79 ± 0.63	
Median (min-max)	6.00 (0.00-6.00)	6.00 (3.00-6.00)	MW: 0.093
Item 2: Control			
Mean ± SD	5.76 ± 0.67	5.75 ± 0.88	
Median (min-max)	6.00 (0.00-6.00)	6.00 (0.00-6.00)	MW: 0.443
Item 3: Side effects			
Mean ± SD	5.45 ± 0.96	5.56 ± 1.12	
Median (min-max)	6.00 (0.00-6.00)	6.00 (1.00-6.00)	MW: 0.048
Item 4: Demands			
Mean ± SD	5.51 ± 0.99	5.58 ± 1.02	
Median (min-max)	6.00 (0.00-6.00)	6.00 (0.00-6.00)	MW: 0.223
Item 5: Convenient			
Mean ± SD	5.45 ± 0.96	5.56 ± 1.14	
Median (min-max)	6.00 (0.00-6.00)	6.00 (0.00-6.00)	MW: 0.073
Item 6: Flexible			
Mean ± SD	5.26 ± 1.30	5.56 ± 0.99	
Median (min-max)	6.00 (0.00-6.00)	6.00 (0.00-6.00)	MW: 0.034
Item 7: Understand HIV			
Mean ± SD	5.37 ± 0.93	5.64 ± 0.70	
Median (min-max)	6.00 (1.00-6.00)	6.00 (3.00-6.00)	MW: 0.022
Item 8: Fits lifestyle			
Mean ± SD	5.48 ± 0.87	5.53 ± 1.15	

Median (min-max)	6.00 (1.00-6.00)	6.00 (0.00-6.00)	MW: 0.131
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Item 9: Recommend

Mean \pm SD	5.63 \pm 1.00	5.63 \pm 1.27
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Median (min-max)	6.00 (0.00-6.00)	6.00 (0.00-6.00)	MW: 0.292
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Item 10: Continue

Mean \pm SD	5.49 \pm 1.05	5.73 \pm 0.83
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Median (min-max)	6.00 (0.00-6.00)	6.00 (0.00-6.00)	MW: 0.054
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MW, Mann-Whitney U test.

Note: Associations between the items score of satisfaction with RAL-based treatment for continuing RAL users were also conducted for the following variables: age group (<50 vs. \geq 50 years), previous ART regimen, CD4 counts, viral load, co-infection (at diagnosis and baseline), presence of comorbidity, number of comorbidities, therapeutic class and number of previous ART regimens. None of these variables showed statistically significant differences ($p > 0.05$).

S6 Table - Association between the questionnaire items of satisfaction with RAL-based treatment for viral load at baseline (independent variable)

	0-50 copies	>50 copies	p-value
N	21	114	
Item 1: Current Treatment			
Mean ± SD	5.71 ± 0.56	5.75 ± 0.77	
Median (min-max)	6.00 (4.00-6.00)	6.00 (0.00-6.00)	MW: 0.339
Item 2: Control			
Mean ± SD	5.67 ± 0.58	5.75 ± 0.79	
Median (min-max)	6.00 (4.00-6.00)	6.00 (0.00-6.00)	MW: 0.141
Item 3: Side effects			
Mean ± SD	5.67 ± 0.73	5.46 ± 1.11	
Median (min-max)	6.00 (4.00-6.00)	6.00 (0.00-6.00)	MW: 0.394
Item 4: Demands			
Mean ± SD	5.33 ± 1.20	5.53 ± 1.05	
Median (min-max)	6.00 (1.00-6.00)	6.00 (0.00-6.00)	MW: 0.244
Item 5: Convenient			
Mean ± SD	5.62 ± 0.67	5.40 ± 1.17	
Median (min-max)	6.00 (4.00-6.00)	6.00 (0.00-6.00)	MW: 0.608
Item 6: Flexible			
Mean ± SD	5.52 ± 0.81	5.32 ± 1.30	
Median (min-max)	6.00 (3.00-6.00)	6.00 (0.00-6.00)	MW: 0.768
Item 7: Understand HIV			
Mean ± SD	5.52 ± 0.75	5.40 ± 0.93	
Median (min-max)	6.00 (4.00-6.00)	6.00 (1.00-6.00)	MW: 0.644
Item 8: Fits lifestyle			
Mean ± SD	5.43 ± 1.36	5.49 ± 0.91	

Median (min-max)	6.00 (0.00-6.00)	6.00 (1.00-6.00)	MW: 0.777
Item 9: Recommend			
Mean \pm SD	6.00 \pm 0.00	5.54 \pm 1.32	
Median (min-max)	6.00 (6.00-6.00)	6.00 (0.00-6.00)	MW: 0.045
Item 10: Continue			
Mean \pm SD	5.71 \pm 0.56	5.46 \pm 1.14	
Median (min-max)	6.00 (4.00-6.00)	6.00 (0.00-6.00)	MW: 0.600

MW, Mann-Whitney U test.

Note: Associations between the items score of satisfaction with RAL-based treatment for continuing RAL users were also conducted for the following variables: age group (<50 vs. \geq 50 years), previous ART regimen, CD4 counts, viral load, co-infection (at diagnosis and baseline), presence of comorbidity, number of comorbidities, therapeutic class and number of previous ART regimens. None of these variables showed statistically significant differences ($p > 0.05$).

S7 Table - Association between the questionnaire items of satisfaction with RAL-based treatment for co-infection at last measurement (independent variable)

	Hepatitis B	Hepatitis C	No co-infection	p-value
N	6	11	225	
Item 1: Current Treatment				
Mean ± SD	5.67 ± 0.52	5.45 ± 1.04	5.74 ± 0.67	
Median (min-max)	6.00 (5.00-6.00)	6.00 (3.00-6.00)	6.00 (0.00-6.00)	KW: 0.502
Item 2: Control				
Mean ± SD	5.67 ± 0.52	5.36 ± 1.29	5.77 ± 0.71	
Median (min-max)	6.00 (5.00-6.00)	6.00 (2.00-6.00)	6.00 (0.00-6.00)	KW: 0.308
Item 3: Side effects				
Mean ± SD	5.33 ± 1.03	5.18 ± 1.17	5.51 ± 1.01	
Median (min-max)	6.00 (4.00-6.00)	6.00 (3.00-6.00)	6.00 (0.00-6.00)	KW: 0.608
Item 4: Demands				
Mean ± SD	5.67 ± 0.52	4.64 ± 1.29	5.57 ± 0.97	
Median (min-max)	6.00 (5.00-6.00)	5.00 (3.00-6.00)*	6.00 (0.00-6.00)*	KW: *0.004
Item 5: Convenient				
Mean ± SD	5.50 ± 0.84	4.45 ± 1.86	5.53 ± 0.95	
Median (min-max)	6.00 (4.00-6.00)	4.00 (0.00-6.00)	6.00 (0.00-6.00)	KW: 0.051
Item 6: Flexible				

Mean ± SD	5.50 ± 1.23	4.45 ± 1.70	5.38 ± 1.19	
Median (min-max)	6.00 (3.00-6.00)**	5.00 (0.00-6.00)*/**	6.00 (0.00-6.00)*	KW: *0.006; **0.047
Item 7: Understand				
HIV				
Mean ± SD	5.50 ± 0.84	5.09 ± 1.38	5.46 ± 0.85	
Median (min-max)	6.00 (4.00-6.00)	6.00 (3.00-6.00)	6.00 (1.00-6.00)	KW: 0.877
Item 8: Fits lifestyle				
Mean ± SD	5.67 ± 0.52	4.91 ± 1.14	5.51 ± 0.96	
Median (min-max)	6.00 (5.00-6.00)	5.00 (3.00-6.00)	6.00 (0.00-6.00)	KW: 0.054
Item 9: Recommend				
Mean ± SD	6.00 ± 0.00	4.91 ± 2.02	5.65 ± 1.03	
Median (min-max)	6.00 (6.00-6.00)	6.00 (0.00-6.00)	6.00 (0.00-6.00)	KW: 0.106
Item 10: Continue				
Mean ± SD	5.67 ± 0.52	4.82 ± 1.60	5.59 ± 0.96	
Median (min-max)	6.00 (5.00-6.00)	5.00 (1.00-6.00)*	6.00 (0.00-6.00)*	KW: *0.042

KW, Kruskal-Wallis test all pairwise comparisons adjusted for multiplicity.

Note: Associations between the items score of satisfaction with RAL-based treatment for continuing RAL users were also conducted for the following variables: age group (<50 vs. ≥50 years), previous ART regimen, CD4 counts, viral load, co-infection (at diagnosis and baseline), presence of comorbidity, number of comorbidities, therapeutic class and number of previous ART regimens. None of these variables showed statistically significant differences ($p > 0.05$).