
IDWeek™
OCTOBER 21-24
2026
WASHINGTON, DC
2026
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Long-Acting Cabotegravir Plus Rilpivirine in People With HIV With Obesity(BMI ≥30 kg/m²): High Durability With Distinct Discontinuation Patterns

Spanish **RELATIVITY Cohort**
23/10/2026, Washington, D.C., USA

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Disclosures

Luis Buzón Martín has received lecture honoraria from ViiV Healthcare in 2026

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Background and study objective

Obesity and injectable therapy

Adiposity may affect intramuscular delivery and drug exposure.

VF: Increased risk when ≥ 2 factors are present

BMI ≥ 30, subtype A6 and archived RPV RAMS

Extended RELATIVITY analysis

Evaluate virologic outcomes, persistence and tolerability across BMI categories.

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Bettonte et al., CID 2024. Elliot et al., JID 2024. Cutrell et al., AIDS 2021. Orkin et al., CID 2023.

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Methods *

- Nationwide, multicenter, ambispective, real-world RELATIVITY cohort*
- Population: adults with HIV-1 RNA <50 copies/mL starting CAB+RPV LA in routine care
- BMI categories: underweight/healthy weight BMI (<25), overweight (25 – <30), obesity (≥30 kg/m²)
- Intervention: cabotegravir 600 mg + rilpivirine 900 mg IM every 2 months
- *Primary Outcome*: virological failure
- *Secondary outcomes:*
  - HIV-1 RNA ≥50 copies/mL at the last assessment
  - Persistence and reason-specific discontinuation
  - Injection-schedule adherence
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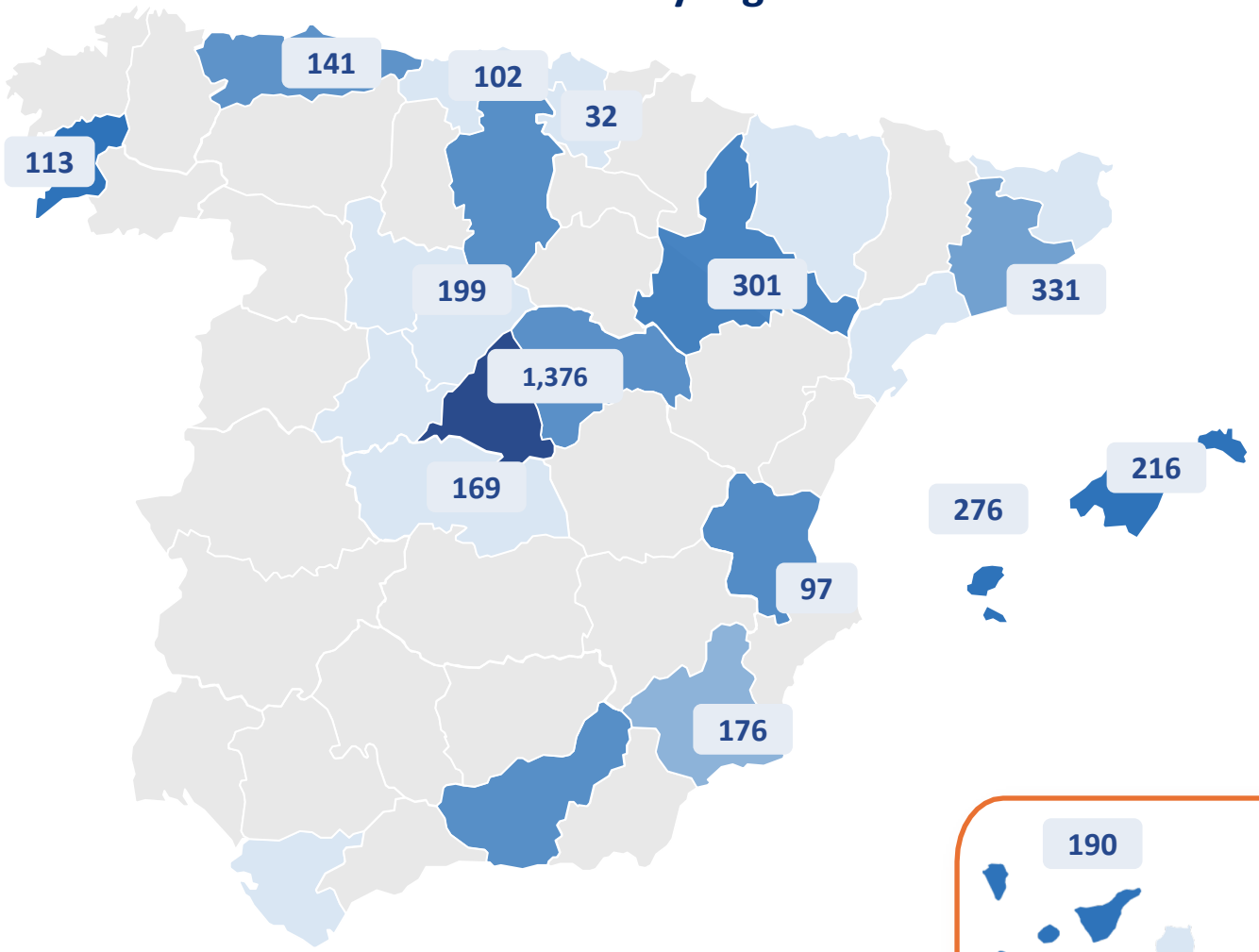
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*Luis Buzón et al. J Antimicrob Chemother. 2025 Dec 2;80(12):3438-3451. doi: 10.1093/jac/dkaf389

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Methods

Cohort by region: 58 centers



3,349
Updated cohort · 53 centers

474 participants without calculable BMI

2,875
Participants in the BMI analysis

378 with obesity (13.1%)

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Results and modelling (VF)

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Results

- N: 2,875 participants with evaluable baseline BMI from the updated RELATIVITY dataset
- BMI: <25 n=1,313 (45.7%); 25–<30, n=1,184 (41.2%); ≥30, n=378 (13.1%)
- Median follow-up to definitive cesation: 25.3 months (IQR, 19.8–31.0)
- Treatment persistence: 89.1%, 89.2% and 86.5% across ascending BMI categories
- VF: 28/2,875 (1.0%); 0.6%, 0.9% and 2.4% across ascending BMI groups

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Baseline characteristics

Characteristic	BMI <25	BMI 25 – <30	BMI ≥30
Age, years	44.0 [36.0–53.8]	46.4 [39.0–55.0]	**49.0 [40.0–56.0]**
Female sex, n/N (%)	193/1,313 (14.7)	148/1,184 (12.5)	**88/378 (23.3)**
Nadir CD4+ T-cell count[1] cells/mm³	341 [204–500]	341 [196–494]	**300 [157–474]**
CD4+ T-cell count, cells/mm³	798 [607–1017]	780 [590–1024]	828 [632–1066]
CD4+/CD8+ T-cell ratio	0.98 [0.70–1.30]	0.97 [0.69–1.31]	0.99 [0.69–1.38]
Previous VF, n/N (%)	47/1,076 (4.4)	38/971 (3.9)	11/295 (3.7)
ART before switch, years	9.0 [5.0–14.2]	9.4 [5.0–15.0]	10.3 [5.5–17.0]
Suppression before switch, months	80 [30.5–126]	84 [36.8–136.2]	103 [48–153]

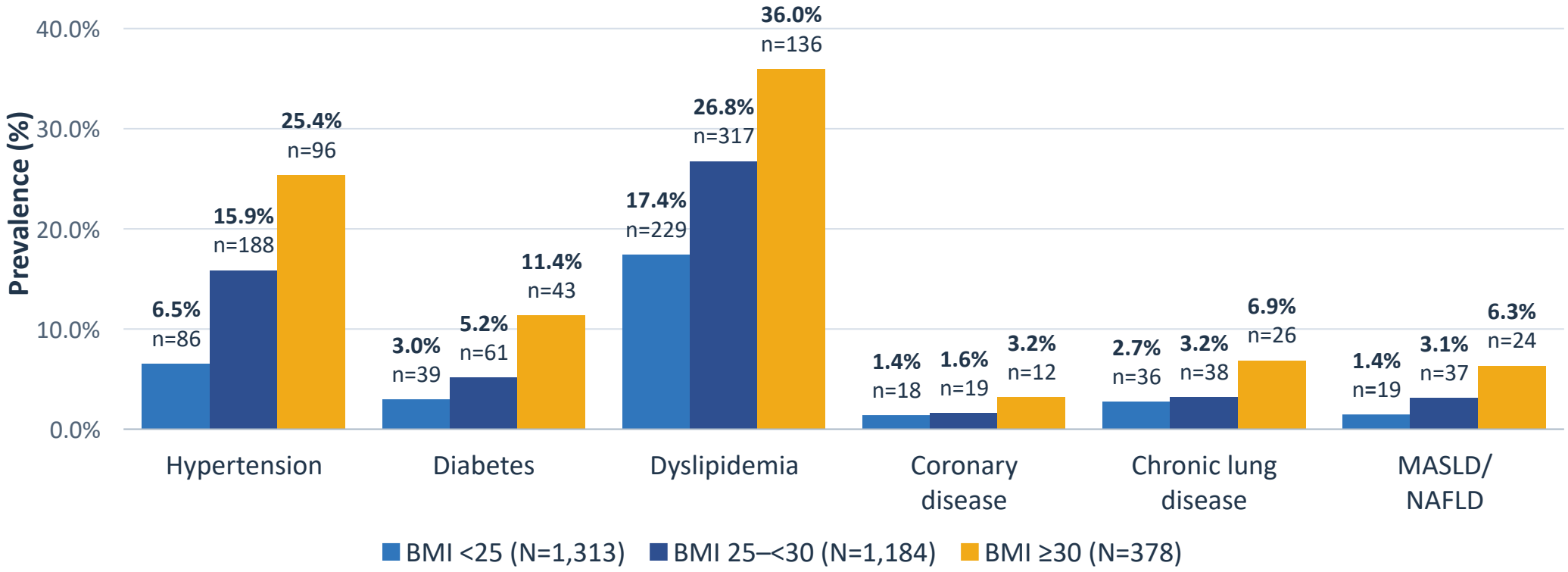
Median [IQR] unless shown as n/N (%). Denominators vary with availability. BMI in kg/m².

1. Gutiérrez F, et al. Clin Infect Dis. 2025 Apr 30;80(4):842-853. doi: 10.1093/cid/ciae475.

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Comorbidity prevalence by BMI



MASLD: metabolic dysfunction-associated steatotic liver disease.
NAFLD: nonalcoholic fatty liver disease. BMI categories in kg/m².

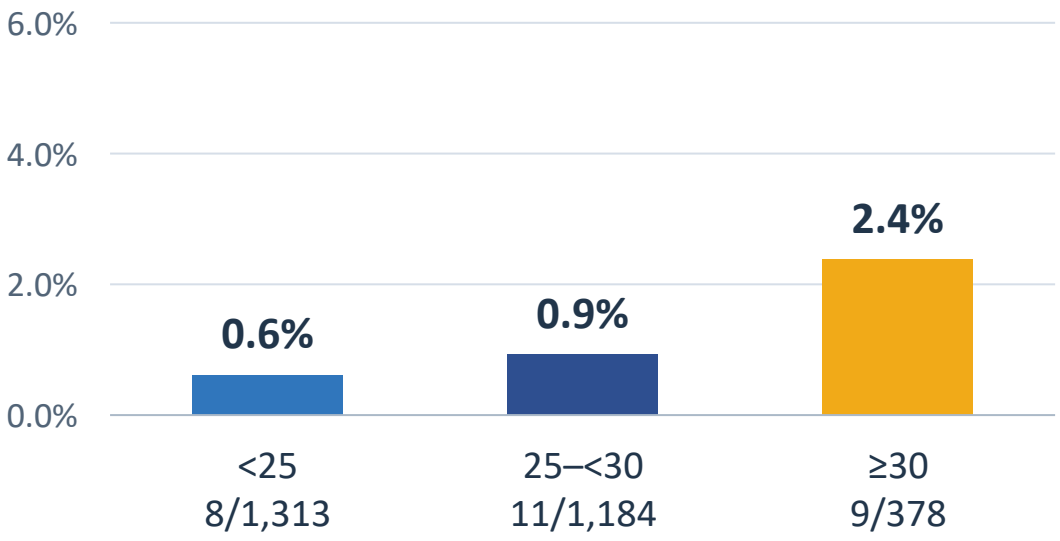
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Virologic outcomes

Primary outcome: virologic failure

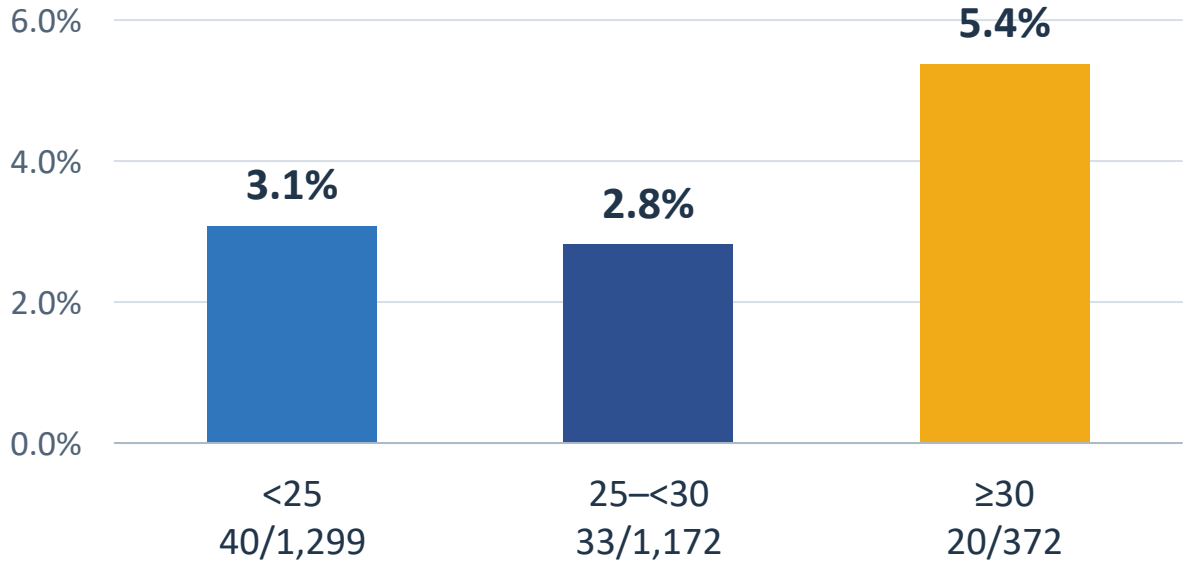
Two consecutive HIV-1 RNA measurements ≥200 copies/mL or one ≥500 copies/mL leading to treatment discontinuation



BMI category (kg/m²) and n/N below each bar

Secondary outcome: last-assessment viremia

HIV-1 RNA ≥50 copies/mL at the last assessment



BMI category (kg/m²) and n/N below each bar

Secondary outcome: HIV-1 RNA ≥50 copies/mL at the last assessment (BMI ≥30 vs <25 kg/m²)
Scheduled visits (n=1,823; 49 events): aOR 2.12 (95% CI, 1.01–4.28), P=0.047
Latest dated assessment: aOR 1.72 (95% CI, 0.78–3.58), P=0.173

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Adjusted virologic failure comparisons

Obesity (BMI ≥30 kg/m²). Firth models: n=1,830 / 17 events

Obesity vs comparator	Adjusted OR (95% CI)	P value
Underweight/healthy weight (BMI <25)	3.80 (1.10–13.16)	0.036
Overweight (BMI 25–<30)*	2.41 (0.73–7.46)	0.140
Pooled BMI <30†	3.12 (1.02–8.42)	0.046

Adjustment: age, female category, previous virologic failure, prior AIDS and nadir CD4 <200 cells/mm³.

Reduced model: n=2,866 / 28 events, obesity vs BMI <25 aOR 4.18 (1.60–11.06).

All three BMI groups were included. Missing covariates reduced the complete-case sample.

*Additional contrast from the same three-category model.

†Additional binary BMI model, using the same participants and adjustment variables. BMI <30 pools <25 and 25–<30.

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Adjusted model for virologic failure

Complete-case Firth model: 1,830 participants, 17 events

Comparison / variable	Adjusted OR (95% CI)	P value
BMI ≥30 vs BMI 25 - <30	2.41 (0.73–7.46)	0.140
BMI ≥30 vs BMI <25	**3.80 (1.10–13.16)**	**0.036**
Age, per 10 years	0.73 (0.46–1.15)	0.173
Female sex	2.27 (0.72–6.25)	0.151
Previous virologic failure	4.02 (0.75–14.33)	0.094
Prior AIDS	0.54 (0.10–2.05)	0.387
Nadir CD4 <200 cells/mm³	**3.23 (1.12–8.93)**	**0.030**

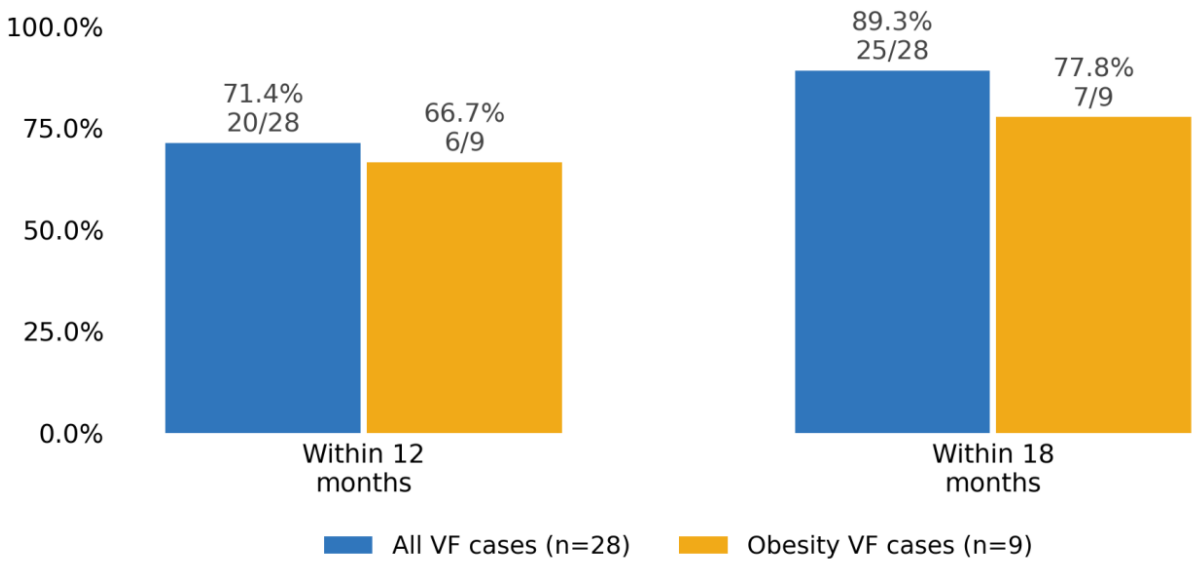
Reduced model: 2,866 participants / 28 events, obesity vs BMI <25 aOR 4.18 (1.60–11.06).

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Timing of VF-associated treatment discontinuation

Among the 28 adjudicated VF cases



Cumulative proportions among VF cases. Timing refers to treatment withdrawal.

Needle use among 9 virologic failures

BMI, kg/m²	VF, n/N (%)	Longer needle only, n	Standard needle only, n	Both needle types, n
30–<35	5/306 (1.6%)	2	2	1
≥35	4/72 (5.6%)	2	1	1

Any longer-needle use: 6/9 VF cases (66.7%)

BMI 30–<35: 3/5 (60.0%)

BMI ≥35: 3/4 (75.0%)

Needle types describe recorded follow-up use, not necessarily the needle used at VF.

Intervals refer to definitive cessation associated with VF, not first qualifying viremia.
Denominator: the 28 adjudicated VF cases; these are not all-cause cessation proportions.

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Recorded postfailure substitutions by BMI

Clinical case review: any recorded NNRTI/INSTI substitution in 19/28 VF cases (67.9%).

Characteristic	BMI <25	BMI 25 – <30	Subtotal BMI <30	BMI ≥30	All VF
VF cases, n	**8**	**11**	**19**	**9**	**28**
Any NNRTI/INSTI substitution, n	**5**	**8**	**13**	**6**	**19**
NNRTI substitution, n	1	7	8	6	14
INSTI substitution, n	5	6	11	5	16
Both NNRTI and INSTI, n	1	5	6	5	11

Recorded substitutions are not independent functional RAM classifications. Categories may overlap.
Denominators include all VF cases; a missing entry does not establish a negative genotype result.

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Persistence and tolerability

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Treatment status at the end of follow-up

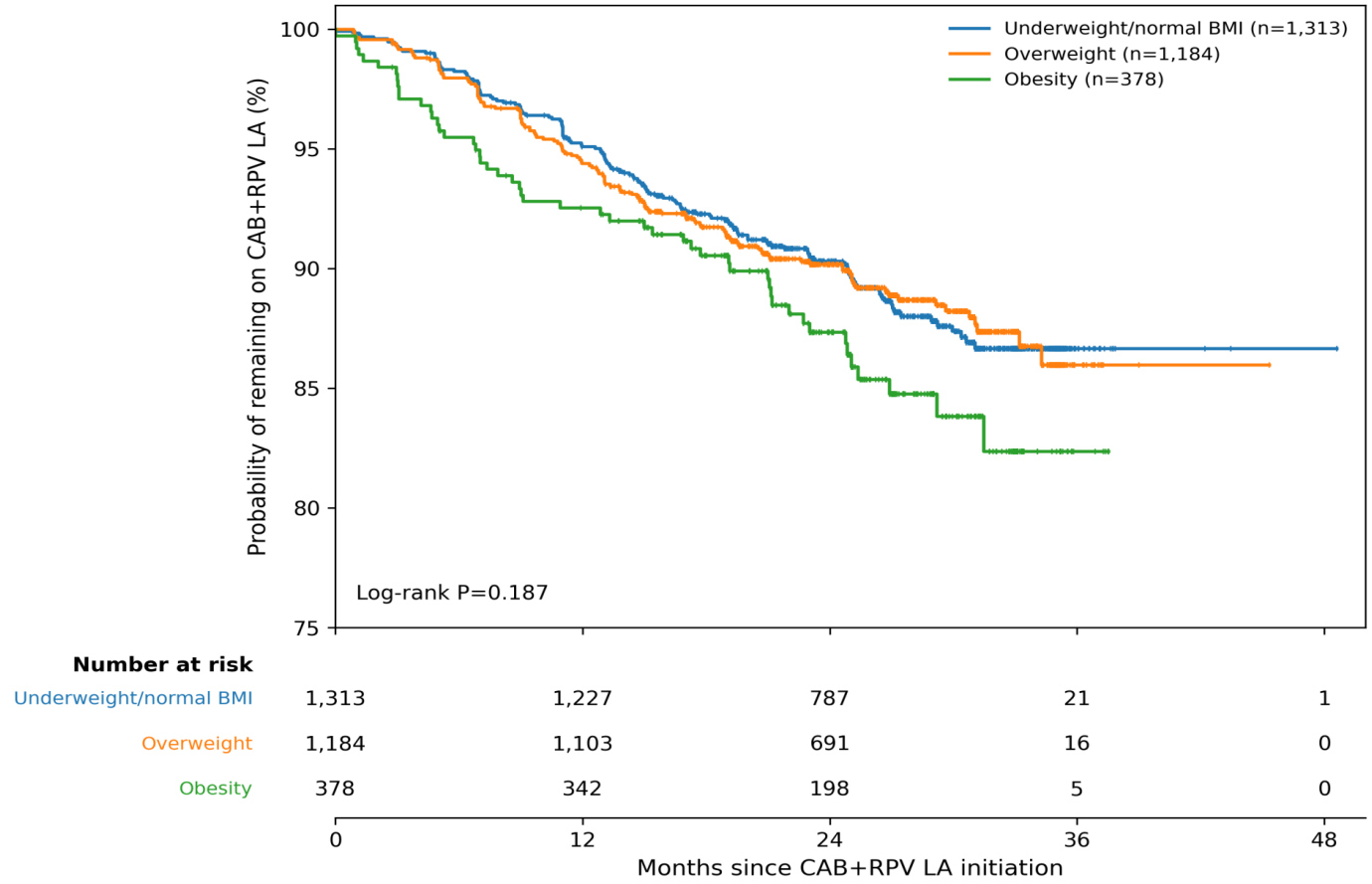
322 definitive discontinuations among all 2,875 participants

Final treatment status	BMI <25	BMI 25–<30	BMI ≥30	Overall P
No recorded definitive discontinuation	1,170/1,313 89.1%	1,056/1,184 89.2%	327/378 86.5%	0.316
Definitive discontinuation	143/1,313 10.9%	128/1,184 10.8%	51/378 13.5%	0.316
Temporary interruption - oral bridging*	31/1,313 2.4%	18/1,184 1.5%	7/378 1.9%	0.313

*Included in no definitive discontinuation. Rows are not additive.

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Treatment persistence over time by BMI



Global log-rank P=0.187 (three BMI groups)

Kaplan–Meier: n=2,875 / 322 events

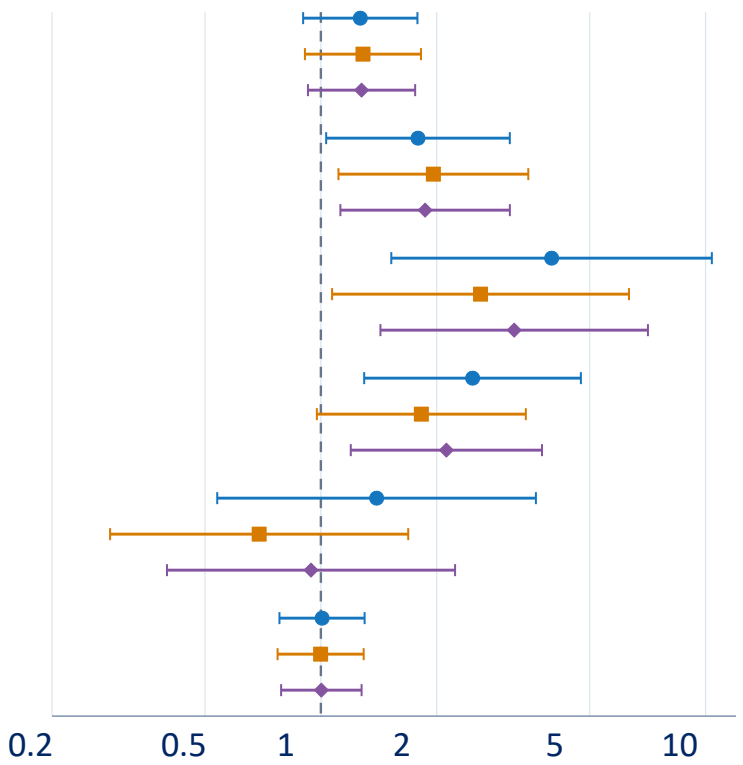
Persistence: first injection to definitive cessation (322 events; 4 dates estimated from last recorded follow-up).
Adjusted Cox: BMI ≥30 vs <25, aHR 1.27 (95% CI, 0.84–1.91); n=2,093 / 222 events.
Wide CIs do not establish equivalent persistence.

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Definitive discontinuation, virologic outcomes and PDC

Outcome	Unadjusted OR (95% CI)
All-cause definitive discontinuation	1.28 (0.91–1.80) 1.29 (0.91–1.82) 1.28 (0.93–1.77)
HIV-1 RNA ≥50 copies/mL at last assessment	1.79 (1.03–3.10) 1.96 (1.11–3.46) 1.87 (1.12–3.10)
Virologic failure	3.98 (1.52–10.38) 2.60 (1.07–6.33) 3.18 (1.43–7.08)
ISR-related cessation	2.48 (1.30–4.74) 1.82 (0.98–3.41) 2.12 (1.20–3.76)
Systemic AE-related cessation	1.40 (0.54–3.62) 0.69 (0.28–1.69) 0.94 (0.40–2.23)
Injection-Schedule: PDC 100%	1.01 (0.78–1.30) 1.00 (0.77–1.29) 1.00 (0.79–1.28)

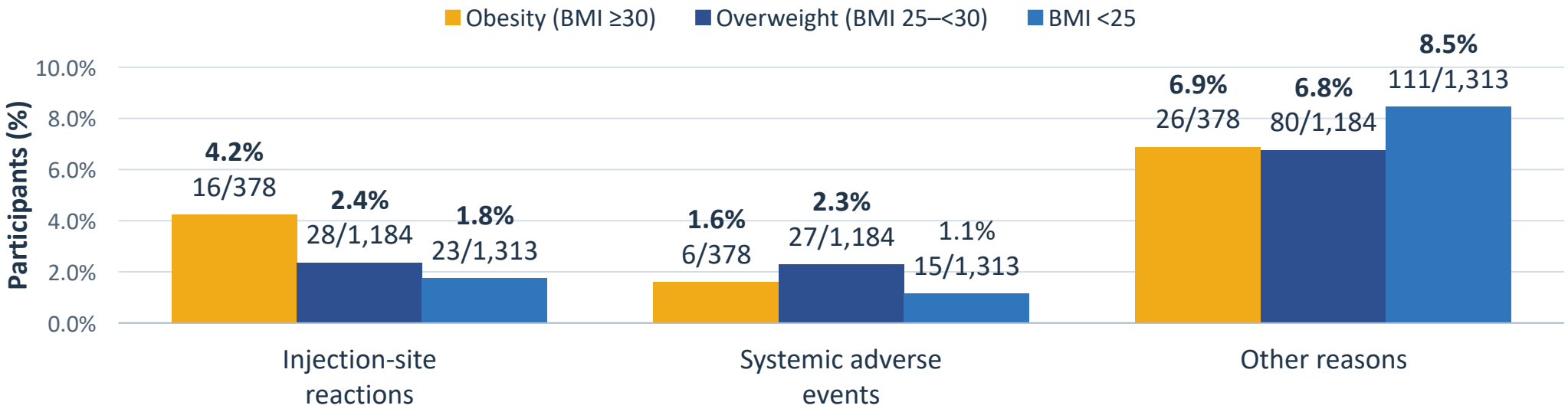


● Obesity vs BMI <25 ■ Obesity vs BMI 25–<30 ◆ Obesity vs pooled BMI <30

OR >1 indicates higher odds with obesity. Recorded cessation reasons may refer to temporary or definitive cessation and may overlap. All-cause definitive cessation includes any reason. Pooled contrasts are exploratory. BMI in kg/m².

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Selected recorded cessation reasons



Adjusted Firth models: obesity (BMI ≥30) vs each comparator

BMI comparator	ISR-related cessation aOR (95% CI)	Systemic AE-related cessation aOR (95% CI)
<25	2.43 (1.17–4.91)	1.27 (0.46–3.11)
25–<30*	1.75 (0.88–3.37)	0.64 (0.24–1.44)
<30 pooled†	2.04 (1.05–3.76)	0.87 (0.34–1.89)

VF category not shown. Recorded cessation reasons may refer to temporary or definitive cessation and may overlap.
ISR: n=2,866 / 67 events. Systemic AEs: n=2,866 / 48. *Three-category contrast. †Pooled <30 refit.

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Injection delivery and injection-schedule PDC

Metric	BMI <25	BMI 25 – <30	BMI ≥30	Overall P
Injection-schedule PDC 100%	911/1,280 (71.2)	834/1,169 (71.3)	266/373 (71.3)	0.995
Injection-schedule PDC ≥90%	1,273/1,280 (99.5)	1,162/1,169 (99.4)	372/373 (99.7)	0.879
Injection-schedule PDC <90%	7/1,280 (0.5)	7/1,169 (0.6)	1/373 (0.3)	0.879
Any late injection interval	509/1,312 (38.8)	453/1,182 (38.3)	142/377 (37.7)	0.918
Any use of a longer needle	24/1,313 (1.8)	99/1,184 (8.4)	146/378 (38.6)	<0.001

Standard: 38 mm (1½ inches). Longer: 50–51 mm (2 inches)

n/N (%). Global P compares three BMI groups. PDC categories follow the RELATIVITY adherence analysis.
Target window: ±7 days, including early/late injections.
Late intervals: ≥37 days for loading or ≥67 days for maintenance. BMI in kg/m².

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Predictions and conclusions

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Exploratory predictive performance

Five-fold cross-validation of baseline clinical models

Outcome	N / events	AUC without BMI	AUC with BMI
Virologic failure	2,866 / 28	0.609	0.628
Definitive discontinuation	2,866 / 322	0.588	0.588
HIV-1 RNA ≥50 copies/mL at the last assessment	2,834 / 92	0.591	0.597

BMI added limited discrimination in internal validation

Five-fold internally cross-validated estimates. No external validation or established clinical utility. These models do not support reliable individual treatment selection.

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Conclusions

Primary outcome: Virologic failure remained uncommon

28/2,875 (1.0%): 0.6% with BMI <25, 0.9% with BMI 25–<30 and 2.4% with BMI ≥30.
Median follow-up to definitive cesation: 25.3 months.

Exploratory adjusted models suggested an obesity association with VF

Versus BMI <25: aOR 3.80 (1.10–13.16). Versus pooled <30: 3.12 (1.02–8.42).
Full models: 17 VF events. Estimates were imprecise
The overweight comparison was imprecise. Low nadir CD4 was also associated.

Obesity was associated with ISR-related withdrawal

Associations vs BMI <25 and pooled <30; the overweight comparison was less conclusive.

Secondary outcomes require cautious interpretation

Last-assessment viremia associations varied with assessment ordering.
Overall/systemic AE withdrawal associations were imprecise.

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Acknowledgements

- To everyone with HIV, especially to those who kindly take part in this cohort
- To all investigators and centers of the RELATIVITY cohort
- This investigator-initiated study received funding from ViiV Healthcare

The authors retained responsibility for analyses and interpretation

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Thank you

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1032 — Immune Evolution: CD4, CD8, and CD4/CD8 Ratio Trajectories.

1033 — Aging: Outcomes in People Aged ≥60 Years.

1042 — Adherence: Injection-Schedule Adherence and Delays.

1043 — General Cohort: Long-Term Virological Effectiveness and Treatment Persistence.

1044 — Genotype: Historical Genotype Availability and Clinical Outcomes.

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