Systematic literature review and meta-analysis of INSTI-based antiretroviral therapy single- versus multiple-tablet regimens for the treatment of HIV

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Supporting information

Fig S3. LOOA: Virologic failure (HIV RNA ≥50 copies/mL) from 5 RCTs

Fig S4. LOOA: Virologic failure (as defined by authors) from 5 retrospective studies

Supplemental Material

S1 Supplemental Methods

Systematic Literature Review (SLR) search strategy and eligibility criteria

The references of identified secondary research articles, such as SLRs, were hand-searched to identify eligible studies that were not captured through the MEDLINE and Embase database searches. A targeted search was performed to obtain posters associated with eligible abstracts from key congresses, including the Conference on Retroviruses and Opportunistic Infections, the International AIDS Society Conference on HIV Science, the Infectious Diseases Society of America ID Week, the European AIDS Clinical Society Conference, the Professional Society for Health Economics and Outcomes Research (ISPOR) Conference, ISPOR Europe, the Academy of Managed Care Pharmacy (AMCP) Annual Meeting, and AMCP Nexus. Full-text articles published beyond the specified timeframe that corresponded to relevant posters were also considered.

All titles and abstracts were reviewed against the predefined Population, Intervention, Comparator, Outcomes, Study, and Timeframe criteria (**Table S3**). Publications identified in the initial screen proceeded to full-text review, and those that met all inclusion criteria were included for data extraction. Data extraction was performed independently by a single reviewer and verified by a second reviewer. Unresolved conflicts were resolved by a third reviewer. Data on population characteristics, intervention/comparator, outcome data (including outcome definitions), and study characteristics were extracted for single-tablet regimens and multiple-tablet regimens and narratively synthesized.

Quality appraisal of full-text articles was conducted in accordance with the University of York Centre for Reviews and Dissemination guidelines [1]. A revised tool was used to assess risk of bias in randomized trials (RoB 2) [2]; the Newcastle-Ottawa Scale was used for nonrandomized real-world comparative cohort studies, quasi-randomized trials, and case-control studies [3]; the cost-of-illness evaluation checklist by Larg and Moss was used to assess the quality of cost and health care resource utilization studies [4]; and a set of quality assessment tools from the National Institutes of Health was used for other study types [5].

Table S1. Search Strategy in MEDLINE via PubMed

Search area by PICO	#	Search syntax	Number of hits
Population	1	"HIV"[Mesh] OR "HIV Infections"[Mesh] OR "Human Immunodeficiency virus" OR "Human Immunodeficiency viruses" OR "Human immuno deficiency virus" OR "Acquired Immunodeficiency Syndrome"[Mesh] OR "Acquired Immunodeficiency syndrome" OR AIDS OR HIV OR HIV1 OR HIV-1 OR "People living with HIV" OR PWH OR PLWH OR PLWHA OR PLWHIV OR PLHIV	554,610
Intervention	2	"Once daily" OR "once a day" OR "QD" OR "single tablet" OR single-tablet OR "single pill" OR "one pill" OR "fixed dose combination" OR "co-formulated" OR "single tablet regimen" OR "single-tablet regimen" OR STR OR CABENUVA OR (cabotegravir AND rilpivirine) OR CAB/RPV	191,434
Outcomes	3	"Treatment Adherence and Compliance"[Mesh] OR "adherence" OR "nonadherence" OR "non-adherence" OR "adherent" OR "nonadherent" OR "non-adherent" OR adhere* OR "compliance" OR "noncompliance" OR "non-compliance" OR "compliant" OR "noncompliant" OR "non-compliant" OR persistence OR persist* OR forgiveness OR forgiv*	1,263,372
	4	"Drug Resistance"[Mesh] OR resistance OR resistant	1,440,144
	5	Discontinuation OR discont* OR withdrawal OR withdraw* OR drop-out OR "drop out"	310,036
	6	"Quality of life" OR "Quality of Life"[Mesh] OR "humanistic burden" OR "health-related quality of life" OR HRQoL OR QoL OR "quality of life" OR "life quality" OR "patient reported outcome" OR "patient-reported outcome" OR "Patient preference*" OR "Patient Preference"[Mesh] OR "patient satisfaction" OR "Patient Satisfaction"[Mesh] OR "treatment satisfaction" OR "patient dissatisfaction" OR "Patient Reported Outcome Measures" OR "Patient Reported Outcome" OR "patient reported outcome measure" OR "patient reported outcome measures" OR "patient reported treatment outcome" OR "patient reported treatment outcomes" OR self-reported OR self-evaluated OR self-administered OR self-completed OR "Medical Outcome Study-HIV Health Survey" OR MOS-HIV OR "Multidimensional Quality of Life questionnaire for HIV/AIDS" OR MQOL-HIV OR "Quality of Care Through the Patient's Eyes - HIV" OR QUOTE-HIV OR "HIV Stigma Scale" OR "HIV Symptom Index" OR HIV-SI OR "HIV Disability Questionnaire" OR HDQ OR "HIV Medication Questionnaire" OR HIVMQ OR "HIV Symptom Rating Questionnaire" OR HIVSRQ OR "HIV Dependent Quality of Life" OR HIVDQoL OR "HIV Overview of Problems - Evaluation System" OR HOPES OR "HIV Treatment Satisfaction Questionnaire" OR HIVTSQ OR "HIV/AIDS-Targeted Quality of Life" OR HAT-QoL OR "HIV Adolescent Readiness for Transition Scale" OR HARTS OR "Functional Assessment of Human Immunodeficiency Virus Infection" OR FAHI OR "Study Medication Satisfaction Questionnaire" OR SMSQ OR "AIDS Health	1,219,526

		Assessment Questionnaire" OR AIDS-HAQ OR "PozQoL Scale" OR PozQoL OR "Treatment Related Empowerment Scale" OR TES OR "Chronic Illness Quality of Life Ladder" OR CIQOLL	
	7	"Cost of Illness"[Mesh] OR "Cost of illness" OR "Health Care Costs"[Mesh] OR "Health Care costs" OR "Health Expenditures" OR "Health Expenditures"[Mesh] OR expenditure* OR "Economics, Hospital"[Mesh] OR "Economics, Medical"[Mesh] OR "Economics, Pharmaceutical"[Mesh] OR "Economics, Nursing"[Mesh] OR pharmacoeconomic OR "economic evaluation" OR "resource allocation" OR "financial impact" OR "financial burden" OR "health care use" OR "healthcare use" OR "healthcare utilization" OR "healthcare utilisation" OR "health care utilization" OR "health care utilisation" OR "resource use" OR "resource utilization" OR "resource utilisation" OR "health care resource" OR "health care resources" OR "healthcare resource" OR "healthcare resources" OR "economic burden" OR "Costs and Cost Analysis"[Mesh] OR cost* OR costing OR inpatient OR "hospital admission*" OR hospitalization[Mesh] OR hospitalization* OR hospitalisation* OR Inpatients[Mesh] OR outpatient OR "ambulatory visit*" OR "Outpatient Clinics, Hospital"[Mesh] OR "emergency room" OR "emergency department" OR prescri* OR "indirect cost*" OR productivity OR "sick leave" OR "illness leave" OR "disability leave" OR employment OR unemployment OR absenteeism OR presenteeism OR "societal cost" OR "societal costs" OR caregiver OR caregiving OR "Ambulatory Care" [Mesh] OR "Drug Prescriptions"[Mesh] OR "Emergency Service, Hospital" [Mesh] OR absentee OR absenteeism OR productivity OR productive* OR "absenteeism"[Mesh]	5,603,106
	8	"Sustained Virologic Response"[Mesh] OR "viral load" OR "virologic suppression" OR "virologic suppression" OR "virologic response" OR "virologic failure" OR "virologic success" OR "virological suppression" OR "virological response" OR "virological failure" OR "virological success" OR "RNA suppression" OR "RNA level" OR "RNA concentration" OR "undetectable" OR "undetectability"	120,496
Outcomes combined	9	#3 OR #4 OR #5 OR #6 OR #7 OR #8	8,633,176
PICO combined	10	#1 AND #2 AND #9	3,261
Time limit	11	#10 AND published from 01/01/2013	1,931
Other limits	12	#11 AND Human study subjects AND English language	**1,523**

Date of the search: November 28, 2023.

Mesh, medical subject headings; PICO, Population, Intervention, Comparator, and Outcomes.

Table S2. Search Strategy in Embase

Search area by PICO	#	Search syntax	Number of hits
Population	1	'Human immunodeficiency virus'/exp OR 'acquired immune deficiency syndrome'/exp OR 'human immunodeficiency virus infection'/exp OR 'human immunodeficiency virus' OR 'human immunodeficiency viruses' OR 'human immuno deficiency virus' OR 'acquired immunodeficiency syndrome' OR AIDS OR HIV OR HIV1 OR 'HIV 1' OR 'people living with HIV' OR PWH OR PLWH OR PLWHA OR PLWHIV OR PLHIV	821,360
Intervention	2	'Once daily' OR 'once a day' OR 'QD' OR 'single tablet' OR 'single pill' OR 'one pill' OR 'fixed dose combination' OR 'co-formulated' OR 'single tablet regimen' OR 'single-tablet regimen' OR STR OR CABENUVA OR (cabotegravir AND rilpivirine) OR CAB/RPV	359,972
Outcomes	3	'Patient compliance'/exp OR 'patient compliance' OR 'adherence' OR 'nonadherence' OR 'non-adherence' OR 'adherent' OR 'nonadherent' OR 'non-adherent' OR adhere* OR 'compliance' OR 'noncompliance' OR 'non-compliance' OR 'compliant' OR 'noncompliant' OR 'non-compliant' OR 'persistence' OR persist* OR forgiveness/exp OR forgiveness OR forgiv*	1,309,045
	4	'Drug resistance'/exp OR resistance OR resistant	1,615,720
	5	'Treatment discontinuation'/exp OR discontinuation OR discont* OR 'treatment withdrawal'/exp OR withdrawal OR withdraw* OR drop-out OR 'drop out'	607,244
	6	'Quality of life'/exp OR 'Quality of Life' OR 'humanistic burden'/exp OR 'humanistic burden' OR 'health-related quality of life' OR HRQoL OR QoL OR 'life quality' OR patient-reported outcome/exp OR 'patient reported outcome' OR 'patient-reported outcome' OR patient preference/exp OR 'Patient preference*' OR patient satisfaction/exp OR 'Patient Satisfaction' OR 'treatment satisfaction' OR 'patient dissatisfaction' OR 'Patient Reported Outcome Measures' OR 'patient reported outcome measure' OR 'patient reported outcome measures' OR 'patient reported treatment outcome' OR 'patient reported treatment outcomes' OR self-reported OR self-evaluated OR self-administered OR self-completed OR 'Medical Outcome Study-HIV Health Survey' OR MOS-HIV OR 'Multidimensional Quality of Life questionnaire for HIV/AIDS' OR MQOL-HIV OR QUOTE-HIV OR 'HIV Stigma Scale' OR 'HIV Symptom Index' OR HIV-SI OR 'HIV Disability Questionnaire' OR HDQ OR 'HIV Medication Questionnaire' OR HIVMQ OR 'HIV Symptom Rating Questionnaire' OR HIVSRQ OR 'HIV Dependent Quality of Life' OR HIVDQoL OR 'HIV Overview of Problems - Evaluation System' OR HOPES OR 'HIV Treatment Satisfaction Questionnaire' OR HIVTSQ OR 'HIV/AIDS-Targeted Quality of Life' OR HAT-QoL OR 'HIV Adolescent Readiness for Transition Scale' OR HARTS OR 'Functional Assessment of Human Immunodeficiency Virus Infection' OR FAHI OR 'Study Medication Satisfaction Questionnaire' OR SMSQ OR 'AIDS Health Assessment Questionnaire' OR AIDS-HAQ OR 'PozQoL Scale' OR PozQoL OR 'Treatment Related	401,553

		Empowerment Scale' OR TES OR 'Chronic Illness Quality of Life Ladder' OR CIQOLL	
	7	'Cost of Illness'/exp OR 'Cost of illness' OR 'Health Care Cost'/exp OR 'Health Care cost' OR 'Health Expenditures' OR expenditure* OR 'economic burden'/exp OR 'economic burden' OR pharmacoeconomic OR 'economic evaluation' OR 'resource allocation'/exp OR 'resource allocation' OR 'financial impact' OR 'financial burden'/exp OR 'financial burden' OR 'health care use' OR 'healthcare use' OR 'healthcare utilization' OR 'healthcare utilisation' OR 'health care utilization'/exp OR 'health care utilization' OR 'health care utilisation' OR 'resource use' OR 'resource utilization' OR 'resource utilisation' OR 'health care resource' OR 'health care resources' OR 'healthcare resource' OR 'healthcare resources' OR cost* OR costing OR inpatient OR 'hospital admission*' OR hospitalization/exp OR hospitalization* OR hospitalisation* OR Inpatient OR 'inpatient care'/exp OR outpatient OR 'outpatient care'/exp OR 'ambulatory visit*' OR 'Ambulatory Care'/exp OR 'emergency room' OR 'emergency ward'/exp OR 'emergency department' OR prescription/exp OR prescri* OR 'indirect cost*' OR productivity OR 'sick leave' OR 'illness leave' OR 'disability leave' OR employment OR unemployment OR absenteeism/exp OR absenteeism OR presenteeism/exp OR presenteeism OR 'societal cost' OR 'societal costs' OR caregiver/exp OR caregiver OR caregiving OR absentee OR absenteeism OR productivity OR productive*	3,275,047
	8	'Sustained Virologic Response'/exp OR 'viral load' OR 'virologic suppression' OR 'virological suppression'/exp OR 'virological suppression' OR 'virologic suppression'/exp OR 'virologic suppression' OR 'virologic response' OR 'virological failure'/exp OR 'virologic failure'/exp 'virologic failure' OR 'virological failure' OR 'virologic success' OR 'virological response' OR 'virological success' OR 'RNA suppression' OR 'RNA level' OR 'RNA concentration' OR 'undetectable' OR 'undetectability'	89,380
Outcomes combined	9	#3 OR #4 OR #5 OR #6 OR #7 OR #8	6,409,019
PICO combined	10	#1 AND #2 AND #9	6,869
Time limit	11	#10 AND published from 01/01/2013	4,437
Other limits	12	#11 AND Human study subjects AND English language	**4,105**

Date of the search: November 28, 2023.

Mesh, medical subject headings; PICO, Population, Intervention, Comparator, and Outcomes.

Table S3. Study Eligibility Criteria According to the PICOST Framework

PICOST framework	Inclusion	Exclusion
P (Population)	• PWH aged 18 years and older, treated with ART	• People at risk of HIV • Other populations (non-PWH)
I (Intervention)	• INSTI-based STR used in the treatment setting ○ B/F/TAF, DTG/3TC, DTG/ABC/3TC, EVG/COBI/F/TDF, EVG/COBI/F/TAF • STR defined as 'guideline-recommended' (US studies) • In case of studies with mixed regimens, at least 80% of PWH on relevant STR	• Non-STR • Non-INSTI–based STR • ART used as pre-/post-exposure prophylaxis • Other therapies (not antiretroviral) • STR defined only at drug class level • Undefined STR • In case of studies with mixed regimens (relevant and irrelevant STRs), outcomes not stratified per relevant STRs • STR defined as 'guideline-recommended' (ex-US studies)
C (Comparator)	• Primary objective: studies that include at least 1 INSTI-based MTR with key focus on DTG + TAF or TDF + F or 3TC • Exploratory objective: B/F/TAF versus other INSTI-based STRs, including DTG/3TC, DTG/ABC/3TC, EVG/COBI/F/TDF, EVG/COBI/F/TAF	• Primary objective: non-MTR • Exploratory objective: non-INSTI–based STR, non-US guideline–recommended STR
O (Outcome)	Studies that include any of the following outcomes: • Adherence • Forgiveness • Persistence • Emergent resistance • Therapy discontinuation • Humanistic outcomes (HRQOL captured by validated generic or disease-specific PRO instruments)	• Other outcomes • Humanistic outcomes measured by custom or unspecified questionnaires

	• Economic outcomes, including direct/indirect costs and HCRU • Viral outcomes (suppression, failure)	
S (Study design)	• Clinical studies (RCTs, nonrandomized trials, including open-label extensions) • Before-and-after studies/switch studies with clearly indicated MTR before the switch • Post hoc analyses • Comparative real-world studies (prospective/retrospective observational studies, including cohort, case-control, cross-sectional, and case-series) • Economic analyses of costs and resource use • Systematic reviews and meta-analyses[a]	• Animal studies • Preclinical studies • Single-arm trials • Noncomparative observational studies • Comparative studies with a sample size of <10 PWH • Before-and-after studies/switch studies without clearly indicated STR/MTR before the switch • Before-and-after studies/switch studies without outcomes reported before the switch
T (Timeframe)	• Last 10 years for full-text articles (ie, studies published from 01/01/2013) • Abstracts/posters published from 01/01/2020 • Abstracts/posters published from 01/01/2020 without mapped full-text articles • Abstracts/posters published from 01/01/2020 with mapped full-text articles[b]	• Beyond the last 10 years for full-text articles (ie, studies published before 01/01/2013) • Abstracts/posters published before 01/01/2020
Publication type	• Full-text articles • Abstracts, letters/short communication reporting original data	• Reviews • Editorials • Commentaries • Notes • Expert opinions
Geography	• Global (provided that studies include DHHS-recommended therapies or those available in the United States)	• NA

Language	• English	• Other than English

3TC, lamivudine; ABC, abacavir; ART, antiretroviral therapies; B, bictegravir; COBI, cobicistat; DHHS, Department of Health and Human Services; DTG, dolutegravir; EVG, elvitegravir; F, emtricitabine; HCRU, health care resource utilization; HRQOL, health-related quality of life; INSTI, integrase strand transfer inhibitor; MTR, multiple-tablet regimen; NA, not applicable; PICOST, Population, Intervention, Comparator, Outcomes, Study design, and Timeframe; PRO, patient-reported outcome; PWH, people with HIV; RCT, randomized controlled trial; STR, single-tablet regimen; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate.

Table S4. Adherence Outcomes

Author, year (country)	Study quality	Population	Outcome definition	Follow-up	Intervention			Comparator			Comparison results	
					Type	Effect size	N	Type	Effect size	N	Effect size	*P* value
Clinical trials												
Klein 2022 **[6]** TriiADD-CTN 286 (Canada)	Low risk of bias	TE (VS and non-VS)	Median (IQR) adherence score[a]	5.5 months (24 weeks)	DTG/ABC/ 3TC	90% (IQR: 87-100)	13	MTR[b]	90% (IQR: 0-100)	12	OR (95% CI): 2.4 (0.42-14)	NA
Avihingsanon 2023 **[7]** (Global)	Low risk of bias	TN	Low adherence, defined as adherence below the 2.5th percentile	22 months (96 weeks)	B/F/ TAF	98.5% (SD: 2.8%)	121	DTG+ F/TDF	98.3% (SD: 3.0%)	122	NA	NA
RWS												
Rodriguez-Gonzalez 2020 **[8]** (Spain)	Fair	PWH who switched to STR (TE VS)	Median (IQR) adherence score[c]	11 months (48 weeks)	DTG/ABC/ 3TC (week 48)	99.0% (IQR: 94.0-100.0)	209	MTR[d] (1 year before switch)	98.0% (IQR: 90.0-100.0)	209	NA	**0.001**
			Proportion of PWH with adherence <90%[c]			12%			20.1%		NA	**0.011**
Sax 2020 **[9]** (USA)	NA (conf. abstract)	TE VS	Proportion of PWH with adherence at PDC ≥80%	6 months	B/F/ TAF	76.6%	1,130	DTG-based MTR[e]	61.5%	579	NA	**<0.001**
					DTG/ABC/ 3TC	66.5%	520				NA	NA
			Proportion of PWH with adherence at PDC ≥95%		B/F/ TAF	52.7%	1,130		31.4%		NA	**<0.001**
					DTG/ABC/ 3TC	41.3%	520				NA	NA
Chakraborty 2020 **[10]** (USA)	7/9 stars	TN	Proportion of PWH with adherence at PDC ≥90%	12 months (1 year)	INSTI-based STR	49.1%	6,049	INSTI-based MTR	23.7%	1,917	Unadjusted ReR (95% CI): 2.07 (1.91-2.26); Adjusted ReR risk	NA

											(95% CI): 2.16 (1.96-2.37)[f]	
					EVG/COBI/ F/TDF	49.3%	NA	RAL+ F/TDF	19.5%	1,500	NA	NA
					DTG/ABC/ 3TC	48.3%	NA	DTG+ F/TDF	38.1%	NA	NA	NA
Hines 2019 **[11]** (USA) *companion to Chakraborty 2020*	6/9 stars	TN	Proportion of PWH who remained adherent[g]	12 months	EVG/COBI/ F/TAF	32%	1,991	DTG+ F/TDF	15.1%	932	NA	NA
					EVG/COBI/ F/TDF	18.9%	2,526					
					DTG/ABC/ 3TC	30%	2,585					
Perez Puente 2020 **[12]** (Spain)	NA (conf. abstract)	PWH who switched to MTR (TE VS)	Proportion of PWH with adherence >95%[h]	9 months	DTG/ABC/ 3TC (switch day 0)	84.6%	52	DTG+ ABC/3TC (month 9)	84.6%	52	NA	NA
Olalla 2018 **[13]** (Spain)	Poor	PWH who switched to MTR	Proportion of adherent PWH	5.5 months (24 weeks)	DTG/ABC/ 3TC (switch day 0)	98%	93	DTG+ ABC/3TC (week 24)	98%	93	NA	NA
Cohen 2020 **[14]** (USA)	8/9 stars	TN	Proportion of adherent PWH[i]	Post-index: 1-180 days	EVG/COBI/ F/TAF	40.7%	135	DTG+ F/TDF	17.2%	151	NA	NA
					EVG/COBI/ F/TDF	22.4%	397				NA	NA
					DTG/ABC/ 3TC	23.4%	368				NA	NA
Degroote 2022 **[15]** (Belgium)	7/9 stars	Highly TE	Median (IQR) VAS adherence score	24 months	EVG/COBI/ F/TAF, EVG/COBI/ F/TDF, DTG/ABC/ 3TC[j]	99.5 (IQR: 95-100)	56	Mixed, including DTG-based	100 (IQR: 98-100)	131	NA	0.132
			Median (IQR) CASE Adherence Index: sum score	24 months	EVG/COBI/ F/TAF, EVG/COBI/ F/TDF, DTG/ABC/ 3TC[j]	15 (IQR: 13-16)	56	Mixed, including DTG-based	15 (IQR: 14-16)	132	NA	0.247

3TC, lamivudine; ABC, abacavir; ATV, atazanavir; B, bictegravir; CASE, Center for Adherence Support Evaluation; CCR5, C-C chemokine receptor type 5; CI, confidence interval; COBI, cobicistat; DRV, darunavir; DTG, dolutegravir; EFV, efavirenz; ETR, etravirine; EVG, elvitegravir; F, emtricitabine; FPV, fosamprenavir; INSTI, integrase strand transfer inhibitor; IQR, interquartile range; LPV, lopinavir; MTR, multiple-tablet regimen; MVC, maraviroc; NA, not available; NNRTI, non-nucleoside reverse transcriptase inhibitor; NRTI, nucleoside/nucleotide reverse transcriptase inhibitor; NVP, nevirapine; OR, odds ratio; PDC, proportion of days covered; PI, protease inhibitor; PWH, people with HIV; r, ritonavir; RAL, raltegravir; ReR, relative risk; RPV, rilpivirine; RWS, real-world studies; SD, standard deviation; STR, single-tablet regimen; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate; TE, treatment-experienced; TN, treatment-naïve; VAS, visual analog scale; VS, virologically suppressed.

[a]Determined from pill counts by calculating the proportion of antiretroviral medications used (dispensed minus returned) divided by the amount dispensed per month. Pill count was corroborated with self-reported adherence using the VAS (last week and/or last month), which measures item ratings by participants in percentile terms from 0 to 100%.

[b]Current MTR: any recommended or alternative regimen in the guideline current at the time which the treating physician considered appropriate for their patient (except those containing DTG) taken for ≥6 months.

[c]Adherence was measured using the method of medication possession ratio, which is reported automatically by the electronic dispensing software of the pharmacy department. This method uses 3 elements: (1) the quantity dispensed in each visit by the pharmacy department; (2) the prescribed daily dosage, which is calculated as pills per day; and (3) the number of days' supply (ie, the quantity dispensed divided by the prescribed daily dosage). The medication possession ratio was calculated by dividing the sum of a

day's supply by the number of days in period multiplied by 100. In TE patients, adherence was compared 1 year before switching and from switching until week 48 or until DTG/ABC/3TC was discontinued for any reason.

[d]NRTI: 204 (97.6%) (F/TDF: 126 [60.3%], ABC/3TC: 70 [33.5%]); NNRTI: 93 (44.5%) (EFV: 46 [22%], RPV: 24 [11.5%], NVP: 18 [8.6%], ETR: 5 [2.4%]); PI: 72 (34.4%) (DRV/r: 40 [19.1%], LPV/r: 16 [7.6%], ATV/r: 14 [6.7%], FPV/r: 2 [1%]); INSTI: 45 (21.5%) (RAL: 27 [12.9%], DTG: 16 [7.6%]); CCR5 inhibitors: 2 (1%) (MVC: 2 [1%]).

[e]DTG+F/TAF, DTG+F/TDF, and DTG+ABC/3TC.

[f]Adjusted for age, sex, index pharmacy type, use of mail order, index year, chronic opioid use, chronic disease score, payment type, copay, predominant ethnicity in the community, low-income community, and pharmacy access. Both unadjusted and adjusted models are accounted for clustering at index store level.

[g]For each 30-day period within the 12-month assessment period, patients were classified as being adherent, nonadherent, or as having discontinued therapy. Adherence was defined as a ≤5-day gap between successive claims for STR (measured from the end of days' supply of 1 claim and the date of the following claim) or ≤5 days in which ≥1 of the drugs in the regimen was not on hand for MTRs.

[h]To measure adherence, the consumption and dispensation registry of the pharmacy service software program was used. Patients with a value >95% were considered adherent.

[i]Adherence was defined as having less than a 5-day gap between fills.

[j]Received by 80% of the STR arm.

Table S5. Characteristics of Studies Included in the Meta-Analyses for Adherence

First author	Year	Design	Data source	Outcome definition	STR	STR exposure (patient-months)	MTR	MTR exposure (patient-months)
Hines [11]	2019	Retrospective	Pharmacy claims	≤5-day gap between successive claims	EVG/COBI/F/TAF, EVG/COBI/F/TDF, DTG/ABC/3TC	85,224	DTG+F/TDF	11,184
Cohen [14]	2020	Retrospective	Medicaid claims	≤5-day gap between successive claims	DTG/ABC/3TC, EVG/COBI/F/TAF, EVG/COBI/F/TDF	5,400	DTG+F/TDF	906
Sax [9]	2020	Retrospective	EMR and dispensing data	PDC ≥95%	B/F/TAF, DTG/ABC/3TC	9,900	DTG+F/TAF, DTG+F/TDF, DTG+ABC/3TC	3,474
Chakraborty [10]	2020	Retrospective	Pharmacy claims	PDC ≥90%	EVG/COBI/F/TDF, DTG/ABC/3TC	72,588	RAL+F/TDF, DTG+F/TDF, DTG+ABC/3TC	23,004

3TC, lamivudine; ABC, abacavir; B, bictegravir; COBI, cobicistat; DTG, dolutegravir; EMR, electronic medical records; EVG, elvitegravir; F, emtricitabine; MTR, multiple-tablet regimen; PDC, proportion of days covered; RAL, raltegravir; STR, single-tablet regimen; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate.

Table S6. Subgroup Analyses for Adherence

Outcome definition	First author	Year	Follow-up (months)	Region	Publication	Previous ART	Random effects pooled IRR (95% CI)	Heterogeneity	Test for subgroup differences (random effects)
Retrospective studies – adherence by outcome definition									
PDC ≥90%	Chakraborty [10]	2020	12	USA	Full-text article	Treatment-naïve	1.81 (1.38-2.39)	I^2=88% τ^2=0.0352 p<0.01	$X^{2=}$0.12 df=1 p=0.73
	Sax [9]	2020	6	USA	Poster	Experienced suppressed			
≤5-day gap between successive claims	Hines [11]	2019	12	USA	Full-text article	Treatment-naïve	1.71 (1.46-2.01)	I^2=0% τ^2=0 p=0.45	
	Cohen [14]	2020	6	USA	Full-text article	Treatment-naïve			
Single study – RCT									
NA	Avihing-sanon [7]	2023	12	Global	Full-text article	Treatment-naïve	1.02 (0.77-1.35)	NA	NA

The pooled estimate was calculated using the inverse variance method. The restricted maximum likelihood method was used to estimate τ^2.

ART, antiretroviral therapy; CI, confidence interval; df, degree of freedom; IRR, incidence rate ratio; NA, not applicable; PDC, proportion of days covered; RCT, randomized controlled trial.

Table S7. Persistence Outcomes – Proportion of PWH on Treatment

Author, year (country)	Study quality	Population	Outcome definition	Follow-up	Intervention			Comparator			Comparison results	
					Type	Effect size	N	Type	Effect size	N	Measure of association	*P* value
RWS												
Colson 2024 **[16]** (USA)[a]	8/9 stars	TE	Line of therapy duration as a percent of follow-up days	Mean (SD): 370.5 days (203.0)	INSTI-based STR	85.4%	3,625	INSTI-based MTR	70.5%	626	NA	NA
					B/F/TAF	92.2%	2,727	DTG+F/TAF	74.4%	539	NA	NA
								DTG+F/TDF	45.3%	87	NA	NA
					DTG/ABC/3TC	70.8%	898	DTG+F/TAF	74.4%	539	NA	NA
								DTG+F/TDF	45.3%	87	NA	NA
Wang 2022 **[17]** (Japan)	6/9 stars	Unclear	Proportion of PWH with 12-month persistence[b]	Mean (SD): 441.6 days (139.1)	INSTI-based STR (DTG or EVG)	81.7%	220	INSTI-based MTR (DTG or EVG)	63.5%	267	NA	**<0.001**
			Probability of remaining on the index regimen after 12 months	12 months		83.8%	220		65.6%	267	NA	**<0.001**
Stellbrink 2020 **[18]** TAFNES (Germany)	NA (conf. abstract)	TN and TE	Proportion of PWH remaining on study drug[c]	24 months	EVG/COBI/ F/TAF	87%	318	F/TAF+ 3rd agent (52% DTG and 9% EVG)	68%	257	NA	NA
Cohen 2020 **[19]** (USA)	NA (conf. abstract)	TN	Proportion of PWH remaining on index regimen among PWH with ≥12 months of follow-up[d]	12 months	B/F/TAF	65%	7,061	DTG+F/TDF	22%	5,168	NA	NA
								DTG+F/TAF	51%	6,670	NA	NA
					EVG/COBI/ F/TAF	56%	25,096	DTG+F/TDF	22%	5,168	NA	NA
								DTG+F/TAF	51%	6,670	NA	NA
					EVG/COBI/ F/TDF	37%	8,332	DTG+F/TDF	22%	5,168	NA	NA
								DTG+F/TAF	51%	6,670	NA	NA
					DTG/ABC/3TC	53%	20,228	DTG+F/TDF	22%	5,168	NA	NA
								DTG+F/TAF	51%	6,670	NA	NA
Sutton 2020 **[20]** (USA)	NA (conf. abstract)	TN	Proportion of PWH remaining on index regimen among PWH	12 months	All guideline-recommended STRs[e]	56.9%	NA	All guideline-recommended MTRs	40.8%	NA	NA	NA
					B/F/TAF	73%	126	DTG+F/TDF	32.4%	136	NA	NA
								DTG+F/TAF	56.8%	273	NA	NA

			with ≥12 months of follow-up[d]		EVG/COBI/ F/TAF	68.7%	734	DTG+F/TDF	32.4%	136	NA	NA
								DTG+F/TAF	56.8%	273	NA	NA
					EVG/COBI/ F/TDF	44.2%	249	DTG+F/TDF	32.4%	136	NA	NA
								DTG+F/TAF	56.8%	273	NA	NA
					DTG/ABC/3TC	70.6%	753	DTG+F/TDF	32.4%	136	NA	NA
								DTG+F/TAF	56.8%	273	NA	NA
Mezzio 2021 **[21]** (USA)	NA (conf. abstract)	TN	Proportion of PWH remaining on index regimen among PWH with ≥12 months of follow-up[d]	12 months	All guideline-recommended STRs[f]	36.5%	34,787	All guideline-recommended MTRs	22.2%	9,977	NA	**<0.0001**
					B/F/TAF	43.5%	9,052	DTG+F/TDF	8.6%	2,122	NA	**<0.0001**
								DTG+F/TAF	29.8%	5,487	NA	**<0.0001**
								RAL+F/TDF	8%	1,697	NA	NA
								RAL+F/TAF	39%	657	NA	NA
					EVG/COBI/ F/TAF	34%	9,500	DTG+F/TDF	8.6%	2,122	NA	NA
								DTG+F/TAF	29.8%	5,487	NA	NA
								RAL+F/TDF	8%	1,697	NA	NA
								RAL+F/TAF	39%	657	NA	NA
					EVG/COBI/ F/TDF	20%	1,569	DTG+F/TDF	8.6%	2,122	NA	NA
								DTG+F/TAF	29.8%	5,487	NA	NA
								RAL+F/TDF	8%	1,697	NA	NA
								RAL+F/TAF	39%	657	NA	NA
					DTG/ABC/3TC	36.2%	7,384	DTG+F/TDF	8.6%	2,122	NA	NA
								DTG+F/TAF	29.8%	5,487	NA	NA
								RAL+F/TDF	8%	1,697	NA	NA
								RAL+F/TAF	39%	657	NA	NA
Cohen 2020 **[14]** (USA)	8/9 stars	TN	Proportion of PWH remaining on index regimen among PWH with ≥12 months of follow-up[d]	12 months	EVG/COBI/ F/TAF	100%	8	DTG+F/TDF	47.8%	67	NA	NA
					EVG/COBI/ F/TDF	43.4%	256				NA	NA
					DTG/ABC/3TC	53.3%	199				NA	NA
Baldin 2019 **[22]** (Italy)	4/9 stars	TE VS	Estimated probability of remaining on treatment	48 weeks	DTG/ABC/3TC	90.3%	380	DTG+3TC	88.6%	236	NA	NA
				96 weeks		72.9%	380		85.6%	236	NA	NA
Ciccullo 2023 **[23]**	6/9 stars	TN	Estimated probability of	48 weeks	B/F/TAF	84.2%	NR	DTG+F/TAF	59.5%	NR	NA	**<0.001**
				96 weeks		74.9%	NR		36.8%	NR	NA	**<0.001**

ODOACRE (Italy)			maintaining study regimen									

3TC, lamivudine; ABC, abacavir; B, bictegravir; COBI, cobicistat; DTG, dolutegravir; EVG, elvitegravir; F, emtricitabine; INSTI, integrase strand transfer inhibitor; MTR, multiple-tablet regimen; NA, not applicable; NR, not reported; PWH, people with HIV; RAL, raltegravir; RWS, real-world studies; SD, standard deviation; STR, single-tablet regimen; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate; TE, treatment-experienced; TN, treatment-naïve; VS, virologically suppressed.

[a]The results from the cohort reported in the Chastek et al. 2021 [24] poster were replaced with those from the same cohort reported in the full-text Colson et al. 2024 manuscript [16].

[b]Calculated with the number of patients with ≥12 months of follow-up in the cohort as the denominator.

[c]Estimated using Kaplan-Meier analysis censoring loss to follow-up.

[d]Measured as the number of days until treatment discontinuation (≥90-day gap in therapy).

[e]81.4% on INSTI-based STRs.

[f]79.5% on INSTI-based STRs.

Table S8. Characteristics of Studies Included in the Meta-Analyses for Persistence

First author	Year	Design	Data source	Outcome definition	STR	STR exposure (patient-months)	MTR	MTR exposure (patient-months)
Baldin [22]	2019	Retrospective	Charts	Estimated probability of remaining on treatment[a]	DTG/ABC/3TC	4,560	DTG/3TC	2,832
Hines [11]	2019	Retrospective	Pharmacy claims	Proportion of PWH remaining on the index regimen[b]	EVG/COBI/ F/TAF, EVG/COBI/ F/TDF, DTG/ABC/3TC	85,224	F/TDF+DTG	11,184
Cohen [14]	2020	Retrospective	Medicaid database	Proportion of PWH remaining on the index regimen[b]	DTG/ABC/3TC, EVG/COBI/ F/TAF, EVG/COBI/ F/TDF	5,556	DTG+F/TDF	804
Sutton [20]	2020	Retrospective	Prescription claims	Proportion of PWH remaining on the index regimen[b]	B/F/TAF, EVG/COBI/ F/TAF, EVG/COBI/ F/TDF, DTG/ABC/3TC	22,344	DTG+F/TAF, DTG+F/TDF	4,908
Colson 2024 [16][c]	2024	Retrospective	Optum claims	Proportion of PWH remaining on	B/F/TAF, DTG/ABC/3TC	94,250	F/TDF+DTG, F/TAF+DTG	16,276

				the index regimen				
Mezzio [21]	2021	Retrospective	APCD	Proportion of PWH remaining on the index regimen[b]	B/F/TAF, DTG/ABC/3TC, EVG/COBI/ F/TAF, EVG/COBI/ F/TDF	330,060	DTG+F/TAF, RAL+F/TAF, DTG+F/TDF, RAL+F/TDF	119,556
Wang [17]	2022	Retrospective	Data Vision database	Probability of remaining on the index regimen	DTG or RAL (details unclear)	1,836	DTG or RAL (details unclear)	2,304

3TC, lamivudine; ABC, abacavir; APCD, all payers claims database; B, bictegravir; COBI, cobicistat; DTG, dolutegravir; EVG, elvitegravir; F, emtricitabine; MTR, multiple-tablet regimen; PWH, people with HIV; RAL, raltegravir; STR, single-tablet regimen; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate.

[a]Treatment discontinuation was defined as the interruption of any of the study drugs or the regimen intensification.

[b]Discontinuation was defined as a minimum 90-day gap between refills.

[c]The results from the cohort reported in the Chastek et al. 2021 [24] poster were replaced with those from the same cohort reported in the full-text Colson et al. 2024 manuscript [16].

Table S9. Subgroup Analyses for Persistence

Subgroup	First author	Year	Follow-up (months)	Region	Publication	Previous ART	Random effects pooled estimate (95% CI)	Heterogeneity	Test for subgroup differences (random effects)
Previous ART use									
Treatment-naïve	Hines [11]	2019	12	USA	Full-text article	Treatment-naïve	IRR=1.42 (1.24-1.61)	I^2=79% τ^2=0.0142 p=0.0007	X^2=1.18 df=1 p=0.2778
	Cohen [14]	2020	12	USA	Full-text article	Treatment-naïve			
	Sutton [20]	2020	12	USA	Abstract	Treatment-naïve			
	Mezzio [21]	2021	12	USA	Abstract	Treatment-naïve			
	Wang [17]	2022	12	Japan	Full-text article	Treatment-naïve			
Previous regimen	Baldin [22]	2019	12	Italy	Full-text article	Previous regimen	IRR=1.19 (0.89-1.59)	I^2=88% τ^2=0.0378 p=0.0045	
	Colson [16]	2024	26	USA	Full-text article	Previous regimen			
Single study – prospective cohort[a]									
NA	Stellbrink [18]	2020	24	Germany	Poster	Previous regimen	OR=1.05 (0.72-1.52)	NA	NA

The pooled estimate was calculated using the inverse variance method. The restricted maximum likelihood method was used to estimate τ^2.

ART, antiretroviral therapy; CI, confidence interval; df, degree of freedom; IRR, incidence rate ratio; NA, not applicable; OR, odds ratio.

[a]Analyzed separately from the retrospective studies; not included in the meta-analysis.

Table S10. Characteristics of Studies Included in the Meta-Analyses for Discontinuation

First author	Year	Design	Data source	Outcome definition	STR	STR (patients or patient-months)	MTR	MTR (patients or patient/ months)
Retrospective studies								
Cohen [19][a]	2020	Retrospective	Pharmacy claims	90-day gap between refills (all-cause)	EVG/COBI/F/ TAF, EVG/COBI/F/ TDF, DTG/ABC/3TC, RPV/F/TAF, RPV/F/TDF, EFV/F/TDF, B/F/TAF	90,949 patients	F/TDF+DTG, F/TAF+DTG, DRV/RTV or COBI+F/TDF, DRV/RTV or COBI+F/TAF, ATV/RTV or COBI+F/TDF, ATV/RTV or COBI+F/TAF, DRV/RTV or COBI+ABC/3TC	20,737 patients
Cohen [14][b]	2020	Retrospective[c]	Medicaid database	90-day gap between refills (all-cause)	EVG/COBI/F/ TAF, EVG/COBI/F/ TDF, DTG/ABC/3TC, RPV/F/TAF, RPV/F/TDF, EFV/F/TDF	1,782 patients	F/TDF+DTG; F/TAF+DTG; F/TDF+DRV/ RTV,COBI; F/TAF+DRV/ RTV,COBI; F/TDF+ATV/ RTV,COBI; F/TAF+ATV/ RTV,COBI; ABC/3TC+DRV/ RTV/COBI	627 patients

Sutton [20][d]	2020	Retrospective[c]	Prescription claims	90-day gap between refills (all-cause)	B/F/TAF, DTG/ABC/3TC, EVG/COBI/F/ TAF, RPV/F/TAF, EVG/COBI/F/ TDF, RPV/F/TDF, EFV/F/TDF	2,591 patients	DTG+F/TAF, DRV/RTV/COBI +F/TDF, ATV/RTV/ COBI+F/ TDF, DRV/RTV/COBI +ABC/3TC	728 patients
Colson [16][e]	2024	Retrospective	Optum claims	Gap in any ART therapy ≥60 days (all-cause)	B/F/TAF, DTG/ABC/3TC	3,625 patients	F/TDF+DTG, F/TAF+DTG	626 patients
Mezzio [21][f]	2021	Retrospective[c]	APCD	90-day gap between refills (all-cause)	B/F/TAF, DTG/3TC, DTG/RPV, DTG/ABC/3TC, EVG/COBI/F/ TAF, EVG/COBI/F/ TDF, RPV/F/TAF, RPV/F/TDF, EFV/F/TDF, EFV/3TC/TDF, DRV/COBI/RTV/ F/TAF, DOR/3TC/TDF	34,787 patients	F/TDF+DTG; F/TAF+DTG; 3TC/TDF+DTG; F/TDF+RAL; F/TAF+RAL; F/TDF+DRV/ RTV,COBI; F/TAF+DRV/ RTV,COBI; F/TDF+ATV/ RTV,COBI; F/TAF+ATV/ RTV,COBI	9,977 patients
Wang [17]	2022	Retrospective[c]	Data Vision database	End of supply, last claim, or 90-day gap between refills (all-cause)	DTG or RAL (details unclear)	220 patients	DTG or RAL (details unclear)	267 patients
RCTs								

Rizzardini [25][g]	2019	Open-label, noninferiority	–	Not provided	EVG/COBI/F/ TAF	1,098 patient-months	ABC/3TC + 3rd agent	546 patient-months
Orkin [26]	2020	Blinded, noninferiority	–	Dis-continuations during follow-up	B/F/TAF	3,840 patient-months	DTG+F/TAF	3,900 patient-months
Hagins [27][h]	2021	Open-label, noninferiority	–	Dis-continuations during follow-up	B/F/TAF	1,980 patient-months	F/TAF or F/TDF or ABC/3TC + 3rd agent	990 patient-months
Avihing-sanon [7]	2023	Blinded, noninferiority	–	Dis-continuations during follow-up	B/F/TAF	1,452 patient-months	DTG+F/TAF	1,464 patient-months
Prospective cohort studies								
Stellbrink [18][i]	2020	Prospective	TAFNES cohort[j]	Persistence (Kaplan-Meier estimates; loss to follow-up was censored)	EVG/COBI/F/ TAF	7,632 patient-months	F/TAF + 3rd agent (52% DTG, 11% NVP, 10% DRV/RTV, 9% RAL, and 18% other/or >1 3rd agent)	6,168 patient-months
Suárez-García [28]	2021	Prospective	CoRIS cohort	All-cause treatment changes	DTG/ABC/3TC	4,974 patient-months	DTG+ABC/3TC	690 patient-months
Corona [29]	2024	Prospective	CoRIS cohort	All-case discontinuation	B/F/TAF	1,896 patient-months	DTG+F/TDF	600 patient-months

3TC, lamivudine; ABC, abacavir; APCD, all payers claims database; ATV, atazanavir; B, bictegravir; COBI, cobicistat; CoRIS, Cohort of the Spanish Research Network; DOR, doravirine; DRV, darunavir; DTG, dolutegravir; EFV, efavirenz; EVG, elvitegravir; F, emtricitabine; INSTI, integrase strand transfer inhibitor; MTR, multiple-tablet regimen; PWH, people with HIV; RAL, raltegravir; RCT, randomized controlled trial; RPV, rilpivirine; RTV, ritonavir; STR, single-tablet regimen; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate.

[a]Estimates from Cohen 2020 were based on a population with 78.6% PWH on INSTI-based regimens; estimates for INSTI-only could not be deduced from the abstract.

[b]Estimates from Cohen 2020b were based on a population with 73% PWH on INSTI-based regimens; estimates for INSTI-only could not be deduced from the full text.

[c]Estimate reported by the authors was adjusted to baseline characteristics.

[d]Estimates from Sutton 2020 were based on a population with 81.4% PWH on INSTI-based regimens; estimates for INSTI-only could not be deduced from the full text.

[e]The results reported in the Chastek et al. 2021 [24] poster were replaced with results from the same cohort reported in the Colson et al. 2024 [16] full-text manuscript. The curves were weighted and thus adjusted for the baseline imbalance.

[f]Estimates from Mezzio 2021 were based on a population with 79.5% PWH on INSTI-based regimens; estimates for INSTI-only could not be deduced from the full text.

[g]Rizzardini 2019: Overall 75.5% of PWH received INSTI-based treatment (100% of the STR arm, 26% of the MTR arm). Data from the MTR arm were not reported in sufficient detail to allow stratification of INSTI-based regimens.

[h]Haggins 2021: Overall 78.6% of PWH received INSTI-based regimen (100% of the STR arm, 60% of the MTR arm). Data from the MTR arm were not reported in sufficient detail to allow stratification of INSTI-based regimens.

[i]Estimates from Stellbrink 2020 were based on a population where at least 61% of PWH in the MTR arm were treated with INSTI-based regimens; estimates for INSTI-only could not be deduced from the poster.

[j]TAFNES was a prospective, observational cohort study in Germany in PWH who initiated or switched to an F/TAF-based treatment regimen.

Table S11. Subgroup Analyses for Discontinuation

Subgroup	First author	Year	Region	Publication	Previous ART	Random effects pooled estimate (95% CI)	Heterogeneity	Test for subgroup differences (random effects)
Regimen – retrospective studies								
B/F/ TAF	Cohen [19]	2020	USA	Abstract	Treatment-naïve	HR=3.59 (2.27-5.69)	I^2=98% τ^2=0.1903 p<0.0001	NA
	Sutton [20]	2020	USA	Abstract	Treatment-naïve			
	Mezzio [21]	2021	USA	Abstract	Treatment-naïve			
	Colson [16]	2024	USA	Full-text article	Previous regimen			
Previous ART use – retrospective studies								
Treatment-naïve	Cohen [19]	2020	USA	Abstract	Treatment-naïve	HR=1.63 (1.54-1.73)	I^2=72% τ^2=0.0023 p=0.0064	X^2=0.83 df=1 p=0.3635
	Sutton [20]	2020	USA	Abstract	Treatment-naïve			
	Cohen [14]	2020	USA	Full-text article	Treatment-naïve			
	Mezzio [21]	2021	USA	Abstract	Treatment-naïve			
	Wang [17]	2022	Japan	Full-text article	Treatment-naïve			
Previous regimen	Colson [16]	2024	USA	Full-text article	Previous regimen	HR=1.47 (1.17-1.83)	NA	
Regimen - RCTs								

B/F/ TAF	Orkin [26]	2020	Global	Full-text article	Treatment-naïve	IRR=0.74 (0.46-1.19)	I^2=0% τ^2=0 p=0.51	NA
	Hagins [27]	2021	USA	Full-text article	Previous treatment			
	Avihing-sanon [7]	2023	Global	Full-text article	Treatment-naïve			
Previous ART use – RCTs								
Treatment-naïve	Orkin [26]	2020	Global	Full-text article	Treatment-naïve	IRR=0.79 (0.48-1.30)	I^2=0% τ^2=0 p=0.42	X^2=0.01 df=1 p=0.91
	Avihing-sanon [7]	2023	Global	Full-text article	Treatment-naïve			
Previous regimen	Rizzardini [25]	2019	Global	Full-text article	Previous treatment	IRR=0.84 (0.30-2.32)	$I^{2=}$36% τ^2=0.2206 p=0.21	
	Hagins [27]	2021	USA	Full-text article	Previous treatment			
Regimen – prospective study								
B/F/ TAF	Corona [29]	2024	Spain	Full-text article	Treatment-naïve	IRR=7.90 (4.04-15.43)	NA	NA
Previous ART use – prospective cohort studies								
Treatment-naïve	Suárez-García [28]	2021	Spain	Full-text article	Treatment-naïve	IRR=7.26 (5.36-9.83)	I^2=0% τ^2=0 p=0.78	$X^{2=}$45.97 df=1 p<0.01
	Corona [29]	2024	Spain	Full-text article	Treatment-naïve			
Previous regimen	Stellbrink [18]	2020	Germany	Poster	Previous treatment	IRR=1.66 (1.22-2.24)	NA	

The pooled estimate was calculated using the inverse variance method. The restricted maximum likelihood method was used to estimate τ^2.

ART, antiretroviral therapy; B, bictegravir; CI, confidence interval; df, degree of freedom; F, emtricitabine; HR, hazard ratio; IRR, incidence rate ratio; NA, not applicable; RCT, randomized controlled trial; TAF, tenofovir alafenamide.

Table S12. Virologic Failure Rates Using the US FDA Snapshot Algorithm – HIV-1 RNA ≥50 Copies/mL[a]

Author, year (country)	Study quality	Population	Follow-up	Intervention			Comparator			Comparison results	
				Type	Effect size	N	Type	Effect size	N	Measure of association	*P* value
Clinical trials											
Sax 2017 **[30]** Study 1490 (Global)	Low risk of bias	TN	48 weeks	B/F/ TAF	4.4%	320	DTG+F/ TAF	1.2%	325	NA	NA
Stellbrink 2019 **[31]** Study 1490 (Global)	Low risk of bias	TN	96 weeks	B/F/ TAF	4.4%	320	DTG+F/ TAF	2.8%	325	NA	NA
Orkin 2020 **[26]** Study 1490 (Global)	Low risk of bias	TN	144 weeks	B/F/ TAF	4.7%	320	DTG+F/ TAF	3.1%	325	NA	NA
Mills 2020 **[32]** Study 1489 & 1490 (Global)	NA (conf. abstract)	TN ≥50 years old	144 weeks	B/F/ TAF	3.1%	96	DTG+F/ TAF	1.7%	59	NA	Not significant
		TN <50 years old			2.6%	538		3.4%	266	NA	
Sax 2021 **[33]** Study 4030 (Global)	Low risk of bias	TE VS	48 weeks	B/F/ TAF	0.4%	284	DTG+F/ TAF	1.1%	281	Diff. (95% CI): −0.7% (−2.8-1.00)	NA[b]
Avihingsanon 2023 **[7]** ALLIANCE (Global)	Low risk of bias	TN	48 weeks	B/F/ TAF	4.2%	119	DTG+F/ TDF	5.7%	122	NA	NA
			96 weeks		2.5%			6.6%		NA	NA
Hagins 2021 **[27]** BRAAVE 2020 (USA)	Low risk of bias	TE VS	24 weeks	B/F/ TAF	0.6%	328	MTR[c]	1.8%	165	Diff. (95% CI): −1.2% (−4.8-0.9)	NA[b]
Rizzardini 2019 **[25]** NCT02605954 (Global)	Low risk of bias	TE VS	24 weeks	EVG/COBI/ F/TAF	1.1%	183	ABC/3TC+ 3rd agent (26% DTG or RAL)	0%	91	NA	NA
RWS											
Chen 2023 **[34]** (Taiwan)	7/9 stars	TE VS	48 weeks	B/F/ TAF	17.5%	40	DTG+2 NRTIs	23.1%	39	NA	NA

Baldin 2019 **[22]** (Italy)	4/9 stars	TE VS	STR: 387 PYFU, median: 13.8 months MTR: 358.6 PYFU	DTG/ABC/ 3TC	0.8%	380	DTG+3TC	3%	236	NA	NA
Perez Puente 2020 **[12]** (Spain)	NA (conf. abstract)	PWH who switched to MTR (TE VS)	9 months	DTG/ABC/ 3TC (switch day 0)	5.8%	52	DTG+ ABC/3TC (month 9)	6.5%	46	NA	NA
Olalla 2018 **[13]** (Spain)	Poor	PWH who switched to MTR	24 weeks	DTG/ABC/ 3TC (switch day 0)	2.2%	93	DTG+ ABC/3TC (week 24)	5.4%	93	NA	NA

Results are presented for the ITT/FAS population and STR versus MTR comparison, unless specified otherwise.

3TC, lamivudine; ABC, abacavir; B, bictegravir; CCR5, C-C chemokine receptor type 5; CI, confidence interval; COBI, cobicistat; DTG, dolutegravir; EVG, elvitegravir; FAS, full analysis set; FDA, Food and Drug Administration; F, emtricitabine; INSTI, integrase strand transfer inhibitor; ITT, intent-to-treat; MTR, multiple-tablet regimen; NA, not applicable; NNRTI, non-nucleoside reverse transcriptase inhibitor; NRTI, nucleoside/nucleotide reverse transcriptase inhibitor; PI, protease inhibitor; PWH, people with HIV; PYFU, person-year follow-up; RAL, raltegravir; RWS, real-world studies; SD, standard deviation; STR, single-tablet regimen; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate; TE, treatment-experienced; TN, treatment-naïve; VS, virologically suppressed.

[a]The FDA snapshot analysis included a) participants who had HIV-1 RNA ≥50 copies/mL, b) participants who discontinued the study drug before the assessed timepoint because of lack of efficacy, or c) participants who discontinued the study drug for other reasons before the assessed timepoint with a final HIV-1 RNA ≥50 copies/mL.

[b]Studies tested noninferiority of STRs versus MTRs, with a prespecified noninferiority margin of 4% [33] and 6% [27].

[c]PWH who stayed on baseline regimen: baseline NRTI backbone: F/TAF: 107 (64.8%); F/TDF: 34 (20.6%); ABC/3TC: 24 (14.5%); other: 0 (0) / baseline 3rd agent: INSTI: 99 (60%); NNRTI: 51 (30.9%); PI: 14 (8.5%); CCR5 antagonist: 1 (0.6%).

Table S13. Characteristics of Studies Included in the Meta-Analyses for Virologic Failure

First author	Year	Design	Data source	Outcome definition	STR	STR exposure (patients or patient-months)	MTR	MTR exposure (patients or patient-months)
RCTs								
Rizzardini [25][a]	2019	Open-label, noninferiority RCT	–	HIV RNA ≥50 copies/mL	EVG/COBI/ F/TAF	1,098 patient-months	ABC/3TC + 3rd agent	546 patient-months
Orkin [26]	2020	Blinded, noninferiority RCT	–	HIV RNA ≥50 copies/mL	B/F/TAF	3,840 patient-months	DTG+F/ TAF	3,900 patient-months
Hagins [27][b]	2021	Open-label, noninferiority RCT	–	HIV RNA ≥50 copies/mL	B/F/TAF	1,968 patient-months	F/TAF or F/TDF or ABC/3TC + 3rd agent	990 patient-months
Sax [33]	2021	Blinded, noninferiority RCT	–	HIV RNA ≥50 copies/mL	B/F/TAF	3,408 patient-months	DTG+F/ TAF	3,372 patient-months
Avihingsanon [7]	2023	Blinded, noninferiority RCT	–	HIV RNA ≥50 copies/mL	B/F/TAF	1,428 patient-months	DTG+F/ TAF	1,464 patient-months
Retrospective studies								
Baldin [22]	2019	Retrospective	Charts	HIV RNA ≥50 copies/mL	DTG/ABC/ 3TC	380 patients	DTG/3TC	236 patients
Krentz [35]	2019	Retrospective	Charts	HIV RNA ≥500 copies/mL	DTG/ABC/ 3TC	441 patients	DTG + ABC/3TC	257 patients

Chastek [24]	2021	Retrospective	Optum Database	Virologic failure	B/F/ TAF, DTG/ABC/ 3TC	4,659 patients	F/TDF+ DTG, F/TAF+ DTG	786 patients
Bowman [36]	2023	Retrospective	Charts	HIV RNA ≥200 copies/mL	DTG/3TC	62 patients	DTG+3TC, DTG+RPV	446 patients
Chen [34]	2023	Retrospective	Charts	Virologic failure	B/F/TAF	40 patients	DTG+2 NRTIs	39 patients

3TC, lamivudine; ABC, abacavir; B, bictegravir; COBI, cobicistat; DTG, dolutegravir; EVG, elvitegravir; F, emtricitabine; INSTI, integrase strand transfer inhibitor; MTR, multiple-tablet regimen; NRTIs, nucleoside reverse transcriptase inhibitors; PWH, people with HIV; RCT, randomized controlled trial; RPV, rilpivirine; STR, single-tablet regimen; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate.

[a]In the Rizzardini 2019 trial, overall, 75.5% of PWH received INSTI-based treatment (100% of the STR arm, 26% of the MTR arm). Data from the MTR arm were not reported in sufficient detail to allow for stratification of INSTI-based regimens.

[b]In the Hagins 2021 trial, overall, 78.6% of PWH received an INSTI-based regimen (100% of the STR arm, 60% of the MTR arm). Data from the MTR arm were not reported in sufficient detail to allow for stratification of INSTI-based regimens.

Table S14. Sensitivity Analyses for Virologic Failure: Substitution of 12-month Data With 36-month Data for 1 RCT

First author	Year	Follow-up (months)	Region	Publication	Previous ART	Pooled IRR (95% CI)	Heterogeneity	Test for subgroup differences (random effects)
Overall sensitivity analysis results								
Rizzardini [25]	2019	6	Global	Full-text article	Previous treatment	0.91 (0.46-1.82)	I^2=1% τ^2=0.1063 p=0.40	NA
Orkin [26][a]	2020	36	Global	Full-text article	Treatment-naïve			
Hagins [27]	2021	6	USA	Full-text article	Previous treatment			
Sax [33]	2021	12	Global	Full-text article	Previous treatment			
Avihingsanon [7]	2023	12	Global	Full-text article	Treatment-naïve			
RCTs with the B/F/TAF regimen								
Orkin [26][a]	2020	36	Global	Full-text article	Treatment-naïve	0.83 (0.39-1.79)	I^2=18% τ^2=0.1715 p=0.30	NA
Hagins [27]	2021	6	USA	Full-text article	Previous treatment			
Sax [33]	2021	12	Global	Full-text article	Previous treatment			
Avihingsanon [7]	2023	12	Global	Full-text article	Treatment-naïve			

The pooled estimate was calculated using the inverse variance method. The restricted maximum likelihood method was used to estimate τ^2. For sensitivity analyses, 12-month follow-up data from Orkin et al. 2020 [26] (reporting outcomes from an earlier article by

Sax et al. 2017 [30]) were substituted with 36-month data. The pooled RR in the overall sensitivity analysis was 0.91 (95% CI: 0.46-1.82) and the heterogeneity was reduced from 49% to 1%.

ART, antiretroviral therapy; B, bictegravir; CI, confidence interval; F, emtricitabine; IRR, incidence rate ratio; NA, not applicable; RCT, randomized controlled trial; TAF, tenofovir alafenamide.

[a]For Orkin et al. 2020, 36-month data were used instead of 12-month data.

Table S15. Subgroup Analyses for Virologic Failure

Subgroup	First author	Year	Follow-up (months)	Region	Publication	Previous ART	Random effects pooled estimate (95% CI)	Heterogeneity	Test for subgroup differences (random effects)
Previous ART use – RCTs									
Treatment-naïve	Orkin [26][a]	2020	12	Global	Full-text article	Treatment-naïve	IRR=1.62 (0.35-7.64)	I^2=73% τ^2=0.9158 p=0.05	X^2=1.45 df=1 p=0.23
	Avihingsanon [7]	2023	12	Global	Full-text article	Treatment-naïve			
Previous regimen	Rizzardini [25]	2019	6	Global	Full-text article	Previous treatment	IRR=0.47 (0.13-1.70)	I^2=0% τ^2=0 p=0.50	
	Hagins [27]	2021	6	USA	Full-text article	Previous treatment			
	Sax [33]	2021	12	Global	Full-text article	Previous treatment			
Single study – prospective cohort									
NA	Stellbrink [18]	2020	24	Germany	Poster	Previous treatment	IRR=0.47 (0.08-2.81)	NA	NA

The pooled estimate was calculated using the inverse variance method. The restricted maximum likelihood method was used to estimate τ^2. The pooled RR was 1.62 (95% CI: 0.35-7.64) with high residual heterogeneity (I^2=73%) in trials with treatment-naïve PWH [7,26] and 0.47 (95% CI: 0.13-1.70) with low heterogeneity (I^2=0%) in trials with treatment-experienced PWH [25,27,33]. Data from 1 prospective study [18] was not included in the base case analysis. The RR in this study was 0.47 (95% CI: 0.08-2.81), suggesting no difference in virologic failure between STRs and MTRs.

ART, antiretroviral therapy; CI, confidence interval; df, degree of freedom; IRR, incidence rate ratio; NA, not applicable; RCT, randomized controlled trial.

[a]For Orkin et al. 2020, data from Sax et al. 2017 [30] were used.

Table S16. Summary of Meta-Regression Results for Virologic Failure (RCTs)

Predictor	Number of trials	Coefficient (95% CI)	RR 95% CI	*P* value	Residual heterogeneity
Time frame (per month increase)	5	0.0946 (−0.3089-0.4981)	1.0992 (0.7342-1.6457)	0.6459	55.2%
Sex (proportion of males, per 10%)	5	0.0038 (−0.0084-0.0160)	1.0038 (0.9916-1.0162)	0.5412	56.5%
Age (per year increase)	5	−0.0602 (−0.1770-0.0567)	0.9416 (0.8378-1.0583)	0.3128	47.6%

Meta-regression of the RCTs was conducted using 3 covariates: study time frame, sex, and age. None of the predictors were associated with a statistically significant change in the relative effect ($p>0.05$ for all), and heterogeneity was not substantially reduced.

CI, confidence interval; RCT, randomized controlled trial; RR, rate ratio.

Table S17. PRO Results

PRO	Outcome definition	Number of studies reporting the outcome	Results STR versus MTR	Key conclusions
Treatment satisfaction	**HIVTSQs** The HIVTSQs is a validated, 10-item questionnaire. Responses to specific questions are summed to produce the general satisfaction/clinical subscale score (range: 0-30) and lifestyle/ease subscale score (range: 0-30). Responses to all questions are summed to produce the total treatment satisfaction score (range: 0-60). Higher results indicate better treatment satisfaction.	Three publications, including 2 clinical trials: • Hagins 2021[27] – BRAAVE (USA): low risk of bias; TE VS PWH who switched to B/F/TAF or stayed on baseline MTR[a] • Rizzardini 2019 [25] – NCT02605954 (global): low risk of bias; TE VS PWH who switched to EVG/COBI/F/TAF or stayed on baseline MTR[b] 1 RWS: • Degroote 2022 [15] – (Belgium): 7/9 stars quality; TE PWH who switched to an STR or stayed on baseline MTR[c]	• In the study by Hagins et al. 2021, median (IQR) scores were higher with B/F/TAF than MTR at week 24 (29 [24-30] vs 28 [7-30]; p<0.001), indicating a small but **significant difference favoring a switch to B/F/TAF** • In the study by Rizzardini et al. 2019, switching to **EVG/COBI/F/TAF was associated with a significant improvement in treatment satisfaction** compared with continuing ABC/3TC+3rd agent in both the general satisfaction/clinical (mean: 11.8 vs 9; p<0.001) and lifestyle/ease subscales (mean: 11.9 vs 8.8; p<0.001) at week 24 • In the study by Degroote et al. 2022, the **estimated mean difference between baseline and month 24 state scores between groups was significantly different**: the score for the **STR increased by 3.3**, while the score for the **MTR decreased by 0.2** over time (p=0.003). This difference in treatment satisfaction was due to a higher score on the lifestyle/ease subscale among the STR group: at month 24 the median subscore was 29.5 (IQR: 27; 30) versus 27 (IQR: 24; 30) in the MTR group (p=0.010). A high median HIVTSQ-change score was registered, already 6 months post-switch: 24 on a scale from −30 (less satisfied) to +30 (more satisfied)	All 3 studies demonstrated **higher treatment satisfaction for STR than for MTR** as measured by the HIVTSQ instrument.
HRQOL	**EuroQol**	1 RWS:	In the study by Degroote et al. 2022, the estimated mean **EuroQol utility score** in	**No differences** over time between STR and

PRO	Outcome definition	Number of studies reporting the outcome	Results STR versus MTR	Key conclusions
	The EQ-5D questionnaire is a generic instrument to value health according to 5 dimensions (mobility, self-care, usual activities, pain/discomfort, and anxiety/depression). Results are assessed as a 6D utility score and a VAS score. The scores range from 0 to 1 or 0 to 100, respectively, with higher values indicating better HRQOL. **MOS-HIV** The MOS-HIV is a brief, comprehensive tool used extensively in PWH. The 35-item questionnaire includes 10 dimensions grouped into physical health and mental health subscales. Subscales are scored on a 0 to 100 scale, with higher values indicating better HRQOL.	• Degroote 2022 [15] – (Belgium); 7/9 stars quality; TE PWH who switched to an STR or stayed on baseline MTR[c]	both groups varied from 0.75 to 0.84, with **no differences between the groups over time**. The same was observed for the **VAS scale**, with estimated mean scores ranging from 78.8 to 84.8. The VAS score increased for both groups: at month 24, the score had increased by 5.73 in the STR group (p=0.004) and by 3.02 in the MTR group as compared to baseline (p=0.008). Estimated **physical and mental health scores of the MOS-HIV** varied from 51.5 to 52.9 and from 50.3 to 51.4, respectively, and showed **no differences over time or between groups**.	MTR groups were observed with regard to HRQOL.
Neurocognitive complaints	Neurocognitive complaints were assessed via screening questions (memory, reasoning/planning/solving problems, and attention). In the case of 1 or more affirmative answers, the neurocognitive complaints were considered present.	1 RWS: • Degroote 2022 [15] – (Belgium); 7/9 stars quality; TE PWH who switched to an STR or stayed on baseline MTR[c]	In the **STR group, the odds of having neurocognitive complaints increased monthly by 4.1% versus the MTR group** (p=0.035). At month 24, participants in the **STR group had significantly higher odds of neurocognitive complaints** (3.005) versus the MTR group (p=0.002).	Neurocognitive complaints were **more frequently reported among people on an STR** versus MTR.
Depressive symptoms	**BDI** The BDI is a widely used 21-item self-report inventory measuring the severity of	1 RWS: • Degroote 2022 [15] – (Belgium); 7/9 stars quality; TE PWH who switched to an	The estimated **number of depressive symptoms remained in the minimal depression range** during the study and among the groups. There was a trend towards more depressive symptoms in the	**Minimal depression symptoms** observed for STR and MTR. **No differences**

PRO	Outcome definition	Number of studies reporting the outcome	Results STR versus MTR	Key conclusions
	depression. A sum score ranges from 0 to 63. The results are interpreted through the use of cut-off scores (0 to 9: minimal depression; 10 to 18: mild depression; 19 to 29: moderate depression; 30 to 63: severe depression).	STR or stayed on baseline MTR[c]	STR group, with an estimated mean increase of 0.10 symptoms per month as compared to the MTR group (p=0.075).	**over time between the STR and MTR groups** were observed.
HIV symptoms	**HIV-SI** The HIV-SI is a 20-item, validated, self-completed instrument used in PWH to measure bothersome symptoms. Scores range from 0 to 20, with higher scores indicating more HIV symptoms.	1 RWS: • Degroote 2022 [15] – (Belgium); 7/9 stars quality; TE PWH who switched to an STR or stayed on baseline MTR[c]	The **estimated number of HIV symptoms was low in both groups** (4/20) and reported symptoms showed the same frequency pattern: fatigue (STR 60.7% vs MTR 62.2%), sleep problems (STR 41.9% vs MTR 40.1%), and trouble of remembering things (STR 40.2% vs MTR 37.8%) were the top 3 symptoms.	**A low number of HIV symptoms** observed in both groups. **No differences over time between the STR and MTR groups** were observed.

3TC, lamivudine; ABC, abacavir; BDI, Beck Depression Inventory; B, bictegravir; CCR5, C-C chemokine receptor type 5; COBI, cobicistat; DTG, dolutegravir; ENT, entry inhibitor; EVG, elvitegravir; F, emtricitabine; HIV-SI, HIV Symptom Index; HIVTSQs, HIV Treatment Satisfaction Questionnaire status version; HRQOL, health-related quality of life; INSTI, integrase strand transfer inhibitor; IQR, interquartile range; MOS-HIV, Medical Outcomes Study HIV Health Survey; MTR, multiple-tablet regimen; NNRTI, non-nucleoside reverse transcriptase inhibitor; NRTI, nucleoside/nucleotide reverse transcriptase inhibitor; PI, protease inhibitor; PRO, patient-reported outcome; PWH, people with HIV; RAL, raltegravir; RWS, real-world study; STR, single-tablet regimen; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate; TE, treatment-experienced; VAS, visual analog scale; VS, virologically suppressed.

[a]PWH who stayed on baseline regimen: baseline NRTI backbone: F/TAF: 107 (64.8%); F/TDF: 34 (20.6%); ABC/3TC: 24 (14.5%); other: 0 (0%) / baseline 3rd agent: INSTI: 99 (60%); NNRTI: 51 (30.9%); PI: 14 (8.5%); CCR5 antagonist: 1 (0.6%).

[b]ABC/3TC+3rd agent (26% DTG or RAL).

[c]PWH used various STR and MTR regimens, including INSTI-based regimens in 45 (80.4%) of PWH in the STR arm (EVG/COBI/F/TAF in 12 [26.7%], EVG/COBI/F/TDF in 2 [4.4%], and DTG/ABC/3TC in 31 [68.9%]) and in 65 (49.6%) of PWH in the MTR arm (NRTI+INSTI: 33 [50.8%], NNRTI+INSTI: 10 [15.4%], PI+INSTI: 9 [13.8%], NRTI+NNRTI+INSTI: 4 [6.2%], NRTI+PI+INSTI: 3 [4.6%], PI+NNRTI+INSTI: 2 [3.1%], INSTI+ENT: 1 [1.5%], NNRTI+INSTI+ENT: 1 [1.5%], NRTI+PI+INSTI+ENT: 1 [1.5%], NRTI+PI+NNRTI+INSTI: 1 [1.5%]).

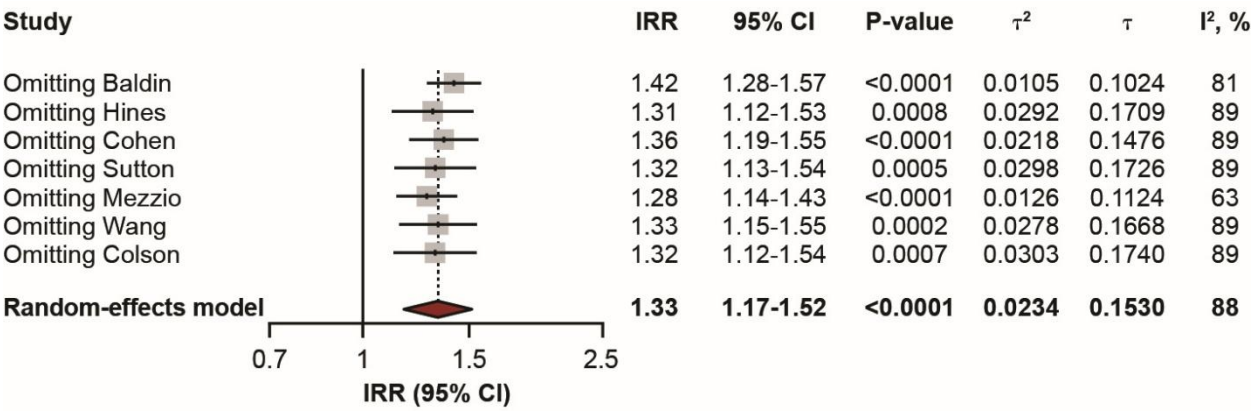
S2 Supplementary results: PROs

Three studies assessed patient-reported outcomes in PWH, including 2 RCTs [25,27] and 1 RWS [15] (**Table S17**). Quantitative synthesis was not performed due to the small sample and disparate outcomes and study designs. All 3 studies assessed treatment satisfaction of PWH via the HIV Treatment Satisfaction Questionnaire and consistently reported higher treatment satisfaction with STRs versus MTRs. The RWS found that neurocognitive complaints were more frequently reported among people on STRs versus MTRs ($p<0.05$), whereas no differences over time were observed between groups in health-related quality of life (via EuroQol and the Medical Outcomes Study HIV Health Survey), depressive symptoms (via the Beck Depression Inventory), or HIV bothersome symptoms (via the HIV Symptom Index). HIV symptoms and depressive symptoms were low overall and comparable between groups.

S3 Supplementary results: Economic outcomes

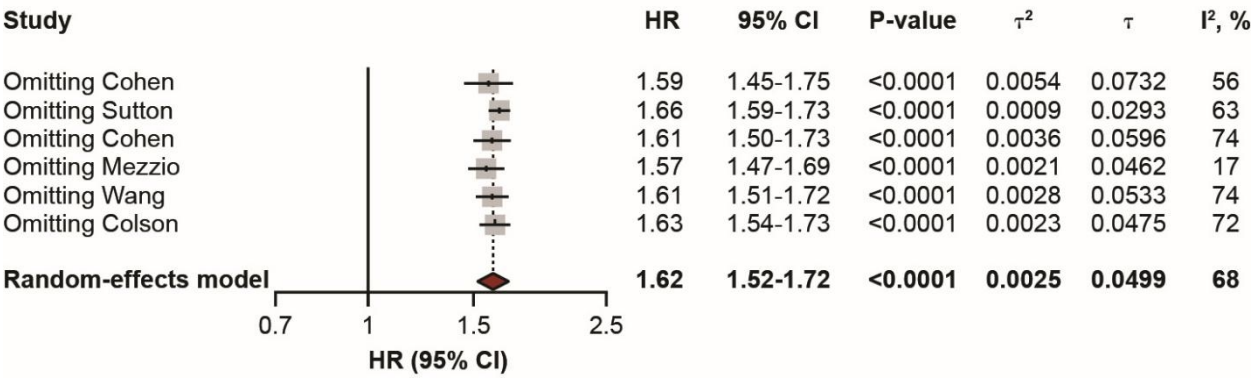
A retrospective US cohort study by Colson et al. 2024 [37] used administrative claims data for commercial and Medicare Advantage health plan enrollees in the Optum Research Database. The per patient per month all-cause total costs for the B/F/TAF, DTG/ABC/3TC, DTG+F/TDF, and DTG+F/TAF regimens were $5,018, $4,638, $7,931, and $5,418, respectively; a similar trend was observed for HIV-related total costs ($4,101, $3,752, $7,091, and $4,510, respectively). PWH treated with STRs had significantly lower HIV-related health care costs, driven primarily by lower pharmacy and inpatient costs among those treated with STRs. The percentage of PWH with all-cause and HIV-related emergency department visits and inpatient stays differed across regimens. PWH treated with B/F/TAF had significantly fewer mean all-cause (1.6 vs 1.8) and HIV-related (0.5 vs 0.7) ambulatory visits versus those treated with DTG+F/TAF ($p<0.01$).

Fig S1. LOOA: Persistence (as defined by authors) from 7 retrospective studies



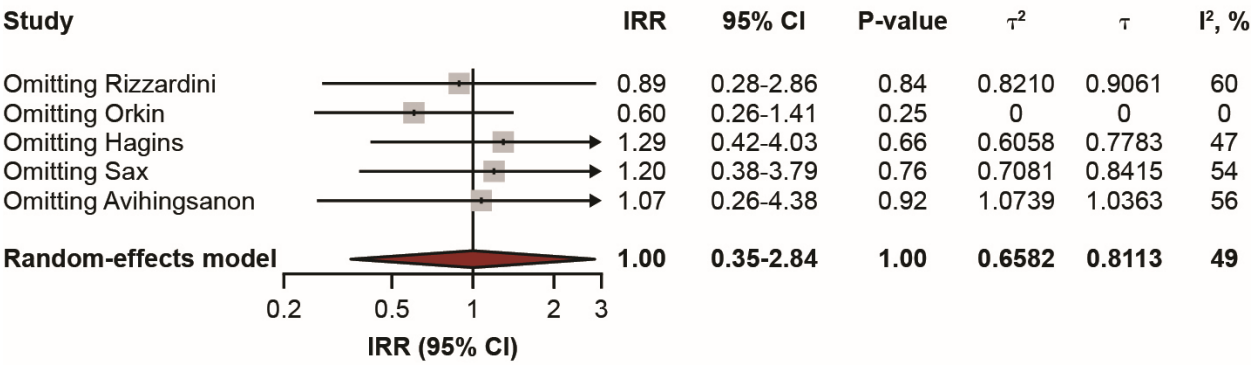
CI, confidence interval; LOOA, leave-one-out-analysis; IRR, incidence rate ratio.

Fig S2. LOOA: Discontinuation (as defined by authors) from 6 retrospective studies



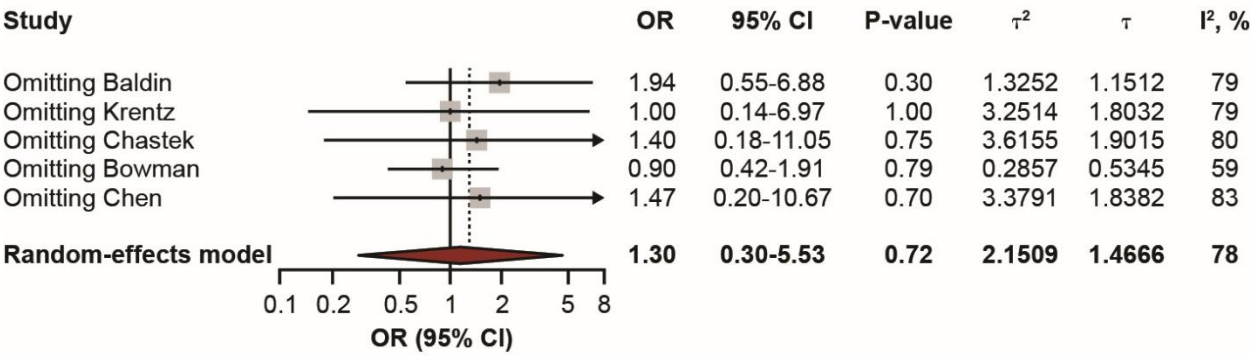
CI, confidence interval; HR, hazard ratio; LOOA, leave-one-out-analysis.

Fig S3. LOOA: Virologic failure (HIV RNA ≥50 copies/mL) from 5 RCTs



CI, confidence interval; IRR, incidence rate ratio; LOOA, leave-one-out-analysis; RCT, randomized controlled trial.

Fig S4. LOOA: Virologic failure (as defined by authors) from 5 retrospective studies



CI, confidence interval; LOOA, leave-one-out-analysis; OR, odds ratio.

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