

Prevalence and Severity of Potential Drug-Drug Interactions in People Living with HIV on Antiretroviral Therapy in the United States

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SUPPLEMENTAL MATERIAL**Table S1. ICD-10-CM diagnosis codes**

Code	Description
HIV/AIDS	
B20	HIV disease
B97.35	HIV, type 2 [HIV 2] as the cause of diseases classified elsewhere
O98.711	HIV disease complicating pregnancy, first trimester
O98.712	HIV disease complicating pregnancy, second trimester
O98.713	HIV disease complicating pregnancy, third trimester
O98.719	HIV disease complicating pregnancy, unspecified trimester
O98.72	HIV disease complicating childbirth
O98.73	HIV disease complicating the puerperium
Z21	Asymptomatic HIV infection status
PEP	
Z20.6	Contact with and (suspected) exposure to HIV
Z11.4	Encounter for screening for human immunodeficiency virus

Abbreviations: ICD-10-CM, *International Classification of Diseases, 10th Edition, Clinical Modification*; PEP, post exposure prophylaxis

Table S2. CPT codes for HIV antibody screening test

Code	Description
86689	Antibody; HTLV/HIV confirmatory test
86701	Antibody; HIV-1
86702	Antibody; HIV-2
86703	Antibody; HIV-1 and HIV-2, single result

Abbreviations: CPT, Current Procedural Terminology; HTLV, human T-cell lymphotropic virus.

Table S3. Comorbidity conditions examined

Category	Condition
Cardiovascular diseases	Acute myocardial infarction, cardiac dysrhythmia, ischemic heart disease, heart failure, stroke/transient ischemic attack
Other cardiovascular diseases	Hypertension, hyperlipidemia (dyslipidemia/lipid disorder), obesity, overweight, type 1 diabetes mellitus, type 2 diabetes mellitus, abnormal glucose, peripheral vascular disease
Renal conditions	Chronic kidney disease, end-stage renal disease
Liver conditions	Cirrhosis and other liver conditions, Hepatitis B, Hepatitis C, NAFLD or NASH
Cancer	<i>Non-AIDS</i> : Breast, lung, colorectal, uterine, liver, Hodgkin's lymphoma, leukemia, prostate, endometrial <i>AIDS-defining cancer</i> : Kaposi sarcoma, non-Hodgkin's lymphoma, cervical
Lung diseases	Chronic obstructive pulmonary disease, asthma
Auto-immune conditions	Rheumatoid arthritis/osteoarthritis, psoriatic arthritis psoriasis multiple sclerosis, systemic lupus erythematosus, inflammatory bowel disease
Endocrine disorders	Hip/pelvic fractures, osteoporosis, hypothyroidism
Gastrointestinal disorders	Diarrhea, nausea/vomiting, peptic ulcer disease, esophageal reflux
Neuropsychiatric conditions	Depression, anxiety disorders, suicidal ideation, bipolar/manic depression, insomnia and sleep-related disorders, amnestic disorder, dementia-type disorders, dissociative and conversion disorder, psychosis, schizophrenia
Mental health and pain conditions	Substance use disorders (opioid use disorders, drug use disorders, alcohol use disorders, tobacco use), Alzheimer's disease and dementia, migraine and chronic headache, trauma-stressor related disorders

Abbreviations: NAFLD, non-alcoholic fatty liver disease; NASH, non-alcoholic steatohepatitis.

Table S4. Prevalence of potential DDIs among PLWH receiving an individual ART agent

ART class	ART agent	PLWH exposed to individual ART agent, n	Potential DDI, n (%) ^a				
			Contraindicated	Major	Minor	No interaction	No comedication or comedications with no interaction only
INSTI	BIC	9,929	112 (1.1)	1,184 (11.9)	629 (6.3)	7,710 (77.7)	6,526 (65.7)
	DTG	7,024	<5 (<0.1) ^b	678 (9.7)	101 (1.7)	5,841 (83.2)	4,818 (68.6)
	EVG/c	1,884	208 (11.0)	998 (53.0)	632 (33.5)	1,158 (61.5)	623 (33.1)
	RAL	430	<5 (<1.2) ^b	16 (3.7)	<5 (<1.2) ^b	388 (90.2)	289 (67.2)
	CAB (injectable)	336	<5 (<1.5) ^b	23 (6.8)	0 (0.0)	293 (87.2)	223 (66.4)
NNRTI	RPV (injectable)	336	8 (2.4)	67 (19.9)	72 (21.4)	288 (85.7)	166 (49.4)
	RPV (oral only)	2,473	100 (4.0)	493 (19.9)	333 (13.5)	2,061 (83.3)	1,371 (55.4)
	DOR	403	<5 (<1.2) ^b	10 (2.5)	25 (6.2)	361 (89.6)	274 (68.0)
	EFV	356	5 (1.4)	215 (60.4)	120 (33.7)	199 (55.9)	109 (30.6)
	ETR	176	<5 (<2.8) ^b	120 (68.2)	88 (50.0)	140 (79.5)	29 (16.5)
	NVP	107	<5 (<4.7) ^b	73 (68.2)	33 (30.8)	86 (80.4)	27 (25.2)
PI	DRV / DRV/c	1,968	286 (14.5)	1,329 (67.5)	810 (41.2)	1,491 (75.8)	417 (21.2)
	ATV / ATV/c	134	35 (26.1)	97 (72.4)	31 (23.1)	96 (71.6)	29 (21.6)
	LPV	35	8 (22.9)	22 (62.9)	5 (14.3)	22 (62.9)	8 (22.9)
NRTI	FTC	15,707	0 (0.0)	20 (0.1)	725 (4.6)	12,467 (79.4)	11,667 (74.3)
	TAF	15,115	0 (0.0)	493 (3.3)	900 (6.0)	11,979 (79.3)	10,817 (71.6)
	3TC	4,656	0 (0.0)	5 (0.1)	233 (5.0)	3,746 (80.5)	3,411 (73.3)
	ABC	2,044	0 (0.0)	50 (2.4)	61 (3.0)	1,684 (82.4)	1,494 (73.1)
	TDF	770	0 (0.0)	143 (18.6)	34 (4.4)	562 (73.0)	531 (69.0)
	ZDV	83	0 (0.0)	6 (7.2)	11 (13.3)	72 (86.7)	54 (65.1)
Other ^c	MVC	91	0 (0.0)	8 (8.8)	9 (9.9)	83 (91.2)	54 (59.3)
	FTR	74	0 (0.0)	35 (47.3)	19 (25.7)	66 (89.2)	24 (32.4)
	LEN	20	0 (0.0)	14 (70.0)	13 (65.0)	18 (90.0)	<5 (<0.3) ^b

^a Potential DDI severity categories per the University of Liverpool HIV Drug Interactions Resource. Columns are not mutually exclusive.^b Data coarsened to preserve confidentiality.

^cIncludes entry, attachment, and capsid inhibitors. Data are not presented for ibalizumab-uiyk due to small sample (<5 PLWH exposed).

Abbreviations: 3TC, lamivudine; ABC, abacavir; ART, antiretroviral therapy; ATV, atazanavir; ATV/c, cobicistat-boosted atazanavir; BIC, bictegravir; CAB, cabotegravir; DDI, drug-drug interaction; DOR, doravirine; DRV, darunavir; DRV/c, cobicistat-boosted darunavir; DTG, dolutegravir; EFV, efavirenz; ETR, etravirine; EVG/c, cobicistat-boosted elvitegravir; FTC, emtricitabine; FTR, fostemsavir; INSTI, integrase strand transfer inhibitor; LEN, lenacapavir; LPV, lopinavir; MVC, maraviroc; NNRTI, non-nucleoside reverse transcriptase inhibitor; NVP, nevirapine; NRTI, nucleoside reverse transcriptase inhibitor; PI, protease inhibitor; PLWH, people living with HIV; RAL, raltegravir; RPV, rilpivirine; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate; ZDV, zidovudine.

Table S5. Prevalence of potential DDIs among PLWH receiving a complete ART regimen

ART class	ART regimen	PLWH exposed to complete ART regimen, n	Potential DDI, n (%) ^a				
			Contraindicated	Major	Minor	No interaction	No comedication or comedications with no interaction only
INSTI	BIC/FTC/TAF	9,672	109 (1.1)	1,151 (11.9)	711 (7.4)	7,460 (77.1)	6,316 (65.3)
	DTG/3TC	2,311	0 (0.0)	191 (8.3)	83 (3.6)	1,809 (78.3)	1,610 (69.7)
	DTG/ABC/3TC	1,753	<5 (<0.3) ^b	208 (11.9)	97 (5.5)	1,407 (80.3)	1,155 (65.9)
	EVG/c/FTC/TAF	1,670	174 (10.4)	870 (52.1)	552 (33.1)	1,016 (60.8)	563 (33.7)
	DTG/RPV ^c	947	40 (4.2)	284 (30.0)	162 (17.1)	820 (86.6)	423 (44.7)
	DTG + FTC/TAF	778	0 (0.0)	117 (15.0)	51 (6.6)	672 (86.4)	480 (61.7)
	CAB/RPV	315	8 (2.5)	62 (19.7)	66 (21.0)	271 (86.0)	156 (49.5)
	RAL + FTC/TAF	131	0 (0.0)	8 (6.1)	7 (5.3)	120 (91.6)	83 (63.4)
	EVG/c/FTC/TDF	86	12 (14.0)	50 (58.1)	27 (31.4)	46 (53.5)	30 (34.9)
	DTG + FTC/TDF	50	0 (0.0)	15 (30.0)	8 (16.0)	41 (82.0)	28 (56.0)
NNRTI	RPV/FTC/TAF	1,159	39 (3.4)	211 (18.2)	111 (9.6)	930 (80.2)	713 (61.5)
	EFV/FTC/TDF	230	<5 (<2.2) ^b	135 (58.7)	67 (29.1)	116 (50.4)	74 (32.2)
	DOR/3TC/TDF	86	0 (0.0)	14 (16.3)	6 (7.0)	63 (73.3)	60 (69.8)
	RPV/FTC/TDF	78	5 (6.4)	28 (35.9)	7 (9.0)	50 (64.1)	38 (48.7)
PI	DRV/c/FTC/TAF	715	103 (14.4)	475 (66.4)	299 (41.8)	523 (73.1)	149 (20.8)
Other regimens ^d		2,431	263 (10.8)	1,403 (57.7)	860 (35.4)	1,884 (77.5)	651 (26.8)

^a Potential DDI severity categories per the University of Liverpool HIV Drug Interactions Resource. Columns are not mutually exclusive.

^b Data coarsened to preserve confidentiality.

^c This regimen includes two anchor agents (INSTI and NNRTI) but is only captured under INSTI.

^d Non-standard regimens consisting of less common combinations of antiretroviral agents.

Abbreviations: 3TC, lamivudine; ABC, abacavir; ART, antiretroviral therapy; BIC, bictegravir; CAB, cabotegravir; DDI, drug-drug interaction; DOR, doravirine; DRV/c, cobicistat-boosted darunavir; DTG, dolutegravir; EFV, efavirenz; EVG/c, cobicistat-boosted elvitegravir; FTC, emtricitabine; INSTI, integrase strand transfer inhibitor; NNRTI, non-nucleoside reverse transcriptase inhibitor; PI, protease inhibitor; PLWH, people living with HIV; RAL, raltegravir; RPV, rilpivirine; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate.

Table S6. Top 5 comedication classes with potential Contraindicated DDIs among patients on complete ART regimen with ≥ 1 comedication^a

BIC/FTC/TAF (N = 111)	DTG/3TC (N = 0)	DTG/ABC/3TC (N < 5) ^b	EVG/c/FTC/TAF (N = 195)	RPV/FTC/TAF (N = 40)	DTG/RPV (N = 40)	DTG + FTC/TAF (N = 0)	DRV/c/FTC/TAF (N = 117)
Gastrointestinal Agents 38 (34.23%)	NA	NR ^b	Steroids 109 (55.90%)	Gastrointestinal Agents 31 (77.50%)	Gastrointestinal Agents 39 (97.50%)	NA	Steroids 63 (53.85%)
Anticonvulsants 31 (27.93%)			Anti-coagulant, Anti-platelet and Fibrinolytic 32 (16.41%)	Anticonvulsants 6 (15.00%)	Anticonvulsants NR ^b		Anti-coagulant, Anti-platelet and Fibrinolytic 24 (20.51%)
Steroids 26 (23.42%)			Antipsychotics/ Neuroleptics 18 (9.23%)	Antipsychotics/ Neuroleptics NR ^b			Antipsychotics/ Neuroleptics 16 (13.68%)
Other 12 (10.81%)			Steroids/ Bronchodilators 8 (4.10%)	Cancer Therapies NR ^b			Steroids/ Bronchodilators NR ^b
Cancer Therapies NR ^b			Lipid Lowering Agents 7 (3.59%)				Antiarrhythmics NR ^b

Table S6 (continued)

CAB/RPV (N = 8)	EFV/FTC/TDF (N < 5) ^b	RAL + FTC/TAF (N = 0)	DOR/3TC/TDF (N = 0)	EVG/c/FTC/TDF (N = 14)	RPV/FTC/TDF (N = 6)	DTG + FTC/TDF (N = 0)	Other regimens ^c (N = 300)
Antifungals/Steroids NR ^b	NR ^b	NA	NA	Steroids 9 (64.29%)	Gastrointestinal Agents 6 (100.00%)	NA	Steroids 150 (50.00%)
Steroids NR ^b				Anti-coagulant, Anti-platelet and Fibrinolytic NR ^b			Anti-coagulant, Anti-platelet and Fibrinolytic 50 (16.67%)
Anticonvulsants NR ^b				Antipsychotics/ Neuroleptics NR ^b			Antipsychotics/ Neuroleptics 32 (10.67%)
Antifungals NR ^b				Steroids/ Bronchodilators NR ^b			Gastrointestinal Agents 30 (10.00%)
Antipsychotics/Neuroleptics NR ^b							Steroids/ Bronchodilators 13 (4.33%)

^a N's represent the total number of comedication. They may exceed the total number of patients who received each ART regimen because some patients received more than one comedication. Comedication classes based on AHFS classifications.

^b Data not presented due to small sample (n<5).

^cNon-standard regimens consisting of less common combinations of antiretroviral agents.

Abbreviations: 3TC, lamivudine; ART, antiretroviral therapy; BIC, bictegravir; C, cobicistat; CAB, cabotegravir; DDI, drug-drug interaction; DOR, doravirine; DRV, darunavir; DTG, dolutegravir; EFV, efavirenz; EVG, elvitegravir; FTC, emtricitabine; NA, not applicable; NR, not reported; PLWH, people living with HIV; RAL, raltegravir; RPV, rilpivirine; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate.

Table S7. Top 5 comedication agents with potential Contraindicated DDIs among patients on complete ART regimen with ≥ 1 comedication^a

BIC/FTC/TAF (N = 111)	DTG/3TC (N = 0)	DTG/ABC/3TC (N < 5)	EVG/C/FTC/TAF (N = 195)	RPV + FTC/TAF (N = 40)	RPV + DTG (N = 40)	DTG + FTC/TAF (N = 0)	DRV/C/FTC/TAF (N = 117)
Gastrointestinal Agents - SUCRALFATE 38 (34.23%)	NA	NR ^b	Steroids - FLUTICASONE PROPIONATE 34 (17.44%)	Gastrointestinal Agents - OMEPRAZOLE 17 (42.50%)	Gastrointestinal Agents - OMEPRAZOLE 21 (52.50%)	NA	Steroids - FLUTICASONE PROPIONATE 22 (18.80%)
Steroids - BETAMETHASONE DIPROPIONATE 16 (14.41%)			Anti-coagulant, Anti- platelet and Fibrinolytic - CLOPIDOGREL BISULFATE 27 (13.85%)	Gastrointestinal Agents - PANTOPRAZOLE SODIUM 11 (27.50%)	Gastrointestinal Agents - PANTOPRAZOLE SODIUM 12 (30.00%)		Anti-coagulant, Anti- platelet and Fibrinolytic - CLOPIDOGREL BISULFATE 21 (17.95%)
Other - MODAFINIL 11 (9.91%)			Steroids - TRIAMCINOLONE ACETONIDE 25 (12.82%)	Anticonvulsants - CARBAMAZEPINE NR ^b	Gastrointestinal Agents - ESOMEPRAZOLE MAGNESIUM NR ^b		Steroids - TRIAMCINOLONE ACETONIDE 17 (14.53%)
Anticonvulsants - PRIMIDONE 10 (9.01%)			Steroids - BUDESONIDE/ FORMOTEROL FUMARATE 19 (9.74%)	Anticonvulsants - OXCARBAZEPINE NR ^b	Gastrointestinal Agents - LANSOPRAZOLE NR ^b		Antipsychotics/ Neuroleptics - QUETIAPINE FUMARATE 13 (11.11%)
Anticonvulsants - OXCARBAZEPINE 9 (8.11%)			Steroids - FLUTICASONE PROPION/ SALMETEROL 15 (7.69%)	Antipsychotics/ Neuroleptics - ZIPRASIDONE HCL NR ^b	Anticonvulsants - OXCARBAZEPINE NR ^b		Steroids - BUDESONIDE/ FORMOTEROL FUMARATE 6 (5.13%)

Table S7 (continued)

CAB/RPV (N = 8)	EFV/FTC/TDF (N < 5)	RAL + FTC/TAF (N = 0)	DOR/3TC/TDF (N = 0)	EVG/c/FTC/TDF (N = 14)	RPV + FTC/TDF (N = 6)	DTG + FTC/TDF (N = 0)	Other regimens ^c (N = 300)
Antifungals/Steroids - CLOTRIMAZOLE/BET AMETHASONE DIP NR ^b	NR ^b	NA	NA	NR ^b	NR ^b	NA	Steroids - FLUTICASONE PROPIONATE 50 (16.67%)
Anticonvulsants - PRIMIDONE NR ^b							Anti-coagulant, Anti- platelet and Fibrinolytic - CLOPIDOGREL BISULFATE 38 (12.67%)

CAB/RPV (N = 8)	EFV/FTC/TDF (N < 5)	RAL + FTC/TAF (N = 0)	DOR/3TC/TDF (N = 0)	EVG/c/FTC/TDF (N = 14)	RPV + FTC/TDF (N = 6)	DTG + FTC/TDF (N = 0)	Other regimens^c (N = 300)
Antifungals - GRISEOFULVIN, MICROSIZE NR ^b							Steroids - TRIAMCINOLONE ACETONIDE 38 (12.67%)
Antipsychotics/Neurolept ics - ZIPRASIDONE HCL NR ^b							Antipsychotics/ Neuroleptics - QUETIAPINE FUMARATE 25 (8.33%)
Other - MODAFINIL NR ^b							Steroids - BUDESONIDE/ FORMOTEROL FUMARATE 21 (7.00%)

^a N's represent the total number of comedications. They may exceed the total number of patients who received each ART regimen because some patients received more than one comedication. Comedication classes based on AHFS classifications.

^b Data not presented due to small sample (n<5).

^c Non-standard regimens consisting of less common combinations of antiretroviral agents.

Abbreviations: 3TC, lamivudine; ART, antiretroviral therapy; BIC, bictegravir; C, cobicistat; CAB, cabotegravir; DDI, drug-drug interaction; DOR, doravirine; DRV, darunavir; DTG, dolutegravir; EFV, efavirenz; EVG, elvitegravir; FTC, emtricitabine; NA, not applicable; NR, not reported; PLWH, people living with HIV; RAL, raltegravir; RPV, rilpivirine; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate.

Table S8. Top 5 comedication classes with potential Major DDIs among patients on complete ART regimen with ≥ 1 comedication^a

BIC/FTC/TAF (N = 1236)	DTG/3TC (N = 204)	DTG/ABC/3TC (N = 223)	EVG/c/FTC/TAF (N = 1611)	RPV/FTC/TAF (N = 258)	DTG/RPV (N = 372)	DTG + FTC/TAF (N = 127)	DRV/c/FTC/TAF (N = 978)
Anti-diabetics 704 (56.96%)	Anti-diabetics 142 (69.61%)	Anti-diabetics 121 (54.26%)	Lipid Lowering Agents 311 (19.30%)	Anti-diabetics 77 (29.84%)	Anti-diabetics 159 (42.74%)	Anti-diabetics 55 (43.31%)	Lipid Lowering Agents 263 (26.89%)
Antifungals 172 (13.92%)	Beta Blockers 22 (10.78%)	Anti-coagulant, Anti-platelet and Fibrinolytic 38 (17.04%)	Calcium Channel Blockers 197 (12.23%)	Gastrointestinal Agents 37 (14.34%)	Gastrointestinal Agents 43 (11.56%)	Antifungals 17 (13.39%)	Anxiolytics/ Hypnotics/ Sedatives 96 (9.82%)
Beta Blockers 88 (7.12%)	Herbals/ Supplements/ Vitamins 21 (10.29%)	Herbals/ Supplements/ Vitamins 19 (8.52%)	Anxiolytics/ Hypnotics/ Sedatives 146 (9.06%)	Antidepressants 36 (13.95%)	Antidepressants 38 (10.22%)	Herbals/ Supplements/ Vitamins 14 (11.02%)	Calcium Channel Blockers 90 (9.20%)
Herbals/ Supplements/ Vitamins 80 (6.47%)	Gastrointestinal Agents 5 (2.45%)	Anticonvulsants 15 (6.73%)	Steroids 135 (8.38%)	Antibacterials 28 (10.85%)	Antibacterials 31 (8.33%)	Beta Blockers 13 (10.24%)	Steroids 72 (7.36%)
Dementia Therapies 38 (3.07%)	Dementia Therapies NR ^b	Beta Blockers 14 (6.28%)	Anti-diabetics 133 (8.26%)	Antifungals 25 (9.69%)	Gastrointestinal Agents (anti- emetics) 19 (5.11%)	Immuno- suppressants 9 (7.09%)	Analgesics 66 (6.75%)

Table S8 (continued)

CAB/RPV (N = 71)	EFV/FTC/TDF (N = 271)	RAL + FTC/TAF (N = 9)	DOR/3TC/TDF (N = 17)	EVG/c/FTC/TDF (N = 84)	RPV/FTC/TDF (N = 41)	DTG + FTC/TDF (N = 17)	Other regimens^c (N = 2982)
Steroids 20 (28.17%)	Lipid Lowering Agents 39 (14.39%)	NR ^b	Antivirals 7 (41.18%)	Analgesics 21 (25.00%)	Analgesics 14 (34.15%)	NR ^b	Lipid Lowering Agents 592 (19.85%)
Antibacterials 16 (22.54%)	Analgesics 33 (12.18%)		Analgesics 5 (29.41%)	Lipid Lowering Agents 13 (15.48%)	Anti-diabetics 8 (19.51%)		Calcium Channel Blockers 285 (9.56%)
Gastrointestinal Agents (anti- emetics) 15 (21.13%)	Steroids 33 (12.18%)		Anticonvulsants NR ^b	Anxiolytics/Hypnot ics/Sedatives 8 (9.52%)	Antivirals 6 (14.63%)		Steroids 258 (8.65%)
Antidepressants 12 (16.90%)	Other 27 (9.96%)		Antidepressants NR ^b	Anti-diabetics 5 (5.95%)	Gastrointestinal Agents NR ^b		Analgesics 221 (7.41%)
Antifungals 6 (8.45%)	Antidepressants 24 (8.86%)		Antifungals NR ^b	Antifungals 5 (5.95%)	Antidepressants NR ^b		Antidepressants 213 (7.14%)

^a N's represent the total number of comedication. They may exceed the total number of patients who received each ART regimen because some patients received more than one comedication. Comedication classes based on AHFS classifications.

^b Data not presented due to small sample (n<5).

^c Non-standard regimens consisting of less common combinations of antiretroviral agents.

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Table S9. Top 5 comedication agents with potential Major DDIs among patients on complete ART regimen with ≥ 1 comedication^a

BIC/FTC/TAF (N = 1236)	DTG/3TC (N = 204)	DTG/ABC/3TC (N = 223)	EVG/c/FTC/TAF (N = 1611)	RPV/FTC/TAF (N = 258)	DTG/RPV (N = 372)	DTG + FTC/TAF (N = 127)	DRV/c/FTC/TAF (N = 978)
Anti-diabetics - METFORMIN HCL 704 (56.96%)	Anti-diabetics - METFORMIN HCL 142 (69.61%)	Anti-diabetics - METFORMIN HCL 121 (54.26%)	Lipid Lowering Agents - ATORVASTATIN CALCIUM 237 (14.71%)	Anti-diabetics - SEMAGLUTIDE 42 (16.28%)	Anti-diabetics - METFORMIN HCL 70 (18.82%)	Anti-diabetics - METFORMIN HCL 55 (43.31%)	Lipid Lowering Agents - ATORVASTATIN CALCIUM 157 (16.05%)
Antifungals - KETOCONAZOLE 167 (13.51%)	Beta Blockers - ATENOLOL 20 (9.80%)	Anti-coagulant, Anti- platelet and Fibrinolytic - CLOPIDOGREL BISULFATE 38 (17.04%)	Calcium Channel Blockers - AMLODIPINE BESYLATE 170 (10.55%)	Gastrointestinal Agents - FAMOTIDINE 36 (13.95%)	Anti-diabetics - SEMAGLUTIDE 45 (12.10%)	Antifungals - KETOCONAZOLE 17 (13.39%)	Lipid Lowering Agents - ROSUVASTATIN CALCIUM 79 (8.08%)
Beta Blockers - ATENOLOL 78 (6.31%)	Herbals/Supplements /Vitamins - OMEGA-3 ACID ETHYL ESTERS 16 (7.84%)	Herbals/Supplements /Vitamins - OMEGA-3 ACID ETHYL ESTERS 16 (7.17%)	Anti-diabetics - METFORMIN HCL 101 (6.27%)	Antidepressants - ESCITALOPRAM OXALATE 27 (10.47%)	Gastrointestinal Agents - FAMOTIDINE 40 (10.75%)	Beta Blockers - ATENOLOL 10 (7.87%)	Calcium Channel Blockers - AMLODIPINE BESYLATE 74 (7.57%)
Herbals/Supplements /Vitamins - OMEGA-3 ACID ETHYL ESTERS 68 (5.50%)	Gastrointestinal Agents - SUCRALFATE 5 (2.45%)	Beta Blockers - ATENOLOL 12 (5.38%)	Lipid Lowering Agents - PRAVASTATIN SODIUM 72 (4.47%)	Anti-diabetics - DULAGLUTIDE 18 (6.98%)	Antidepressants - ESCITALOPRAM OXALATE 29 (7.80%)	Immunosuppressants - CYCLOSPORINE 9 (7.09%)	Anti-diabetics - METFORMIN HCL 64 (6.54%)
Dementia Therapies - MEMANTINE HCL 35 (2.83%)	Dementia Therapies - MEMANTINE HCL NR ^b	Gastrointestinal Agents - SUCRALFATE 9 (4.04%)	Antidepressants - TRAZODONE HCL 70 (4.35%)	Anti-diabetics - TIRZEPATIDE 15 (5.81%)	Anti-diabetics - DULAGLUTIDE 21 (5.65%)	Herbals/Supplements /Vitamins - OMEGA-3 ACID ETHYL ESTERS 8 (6.30%)	Other - TAMSULOSIN HCL 42 (4.29%)

Table S9 (continued)

CAB/RPV (N = 71)	EFV/FTC/TDF (N = 271)	RAL + FTC/TAF (N = 9)	DOR/3TC/TDF (N = 17)	EVG/c/FTC/TDF (N = 84)	RPV + FTC/TDF (N = 41)	DTG + FTC/TDF (N = 17)	Other regimens^c (N = 2982)
Steroids - TESTOSTERONE CYPIONATE 12 (16.90%)	Lipid Lowering Agents - ATORVASTATIN CALCIUM 33 (12.18%)	NR ^b	Antivirals - VALACYCLOVIR HCL 7 (41.18%)	Lipid Lowering Agents - ATORVASTATIN CALCIUM 13 (15.48%)	Antivirals - VALACYCLOVIR HCL 6 (14.63%)	NR ^b	Lipid Lowering Agents - ATORVASTATIN CALCIUM 324 (10.87%)
Antibacterials - AZITHROMYCIN 11 (15.49%)	Calcium Channel Blockers - AMLODIPINE BESYLATE 18 (6.64%)		Analgesics - MELOXICAM NR ^b	Analgesics - IBUPROFEN 7 (8.33%)	Analgesics - DICLOFENAC SODIUM NR ^b		Calcium Channel Blockers - AMLODIPINE BESYLATE 240 (8.05%)

CAB/RPV (N = 71)	EFV/FTC/TDF (N = 271)	RAL + FTC/TAF (N = 9)	DOR/3TC/TDF (N = 17)	EVG/c/FTC/TDF (N = 84)	RPV + FTC/TDF (N = 41)	DTG + FTC/TDF (N = 17)	Other regimens^c (N = 2982)
Antidepressants - ESCITALOPRAM OXALATE 11 (15.49%)	Other - LEVOTHYROXINE SODIUM 13 (4.80%)		Anticonvulsants - TOPIRAMATE NR ^b	Analgesics - HYDROCODONE/ ACETAMINOPHEN NR ^b	Anti-diabetics - SEMAGLUTIDE NR ^b		Lipid Lowering Agents - ROSUVASTATIN CALCIUM 195 (6.54%)
Gastrointestinal Agents (anti-emetics) - ONDANSETRON HCL 9 (12.68%)	Antidepressants - TRAZODONE HCL 10 (3.69%)		Analgesics - ASPIRIN NR ^b	Analgesics - DICLOFENAC SODIUM NR ^b	Anti-diabetics - TIRZEPATIDE NR ^b		Anti-diabetics - METFORMIN HCL 132 (4.43%)
Antifungals - FLUCONAZOLE 6 (8.45%)	Other - TAMSULOSIN HCL 9 (3.32%)		Analgesics - IBUPROFEN NR ^b	Analgesics - OXYCODONE HCL/ ACETAMINOPHEN NR ^b	Analgesics - NAPROXEN NR ^b		Other - TAMSULOSIN HCL 102 (3.42%)

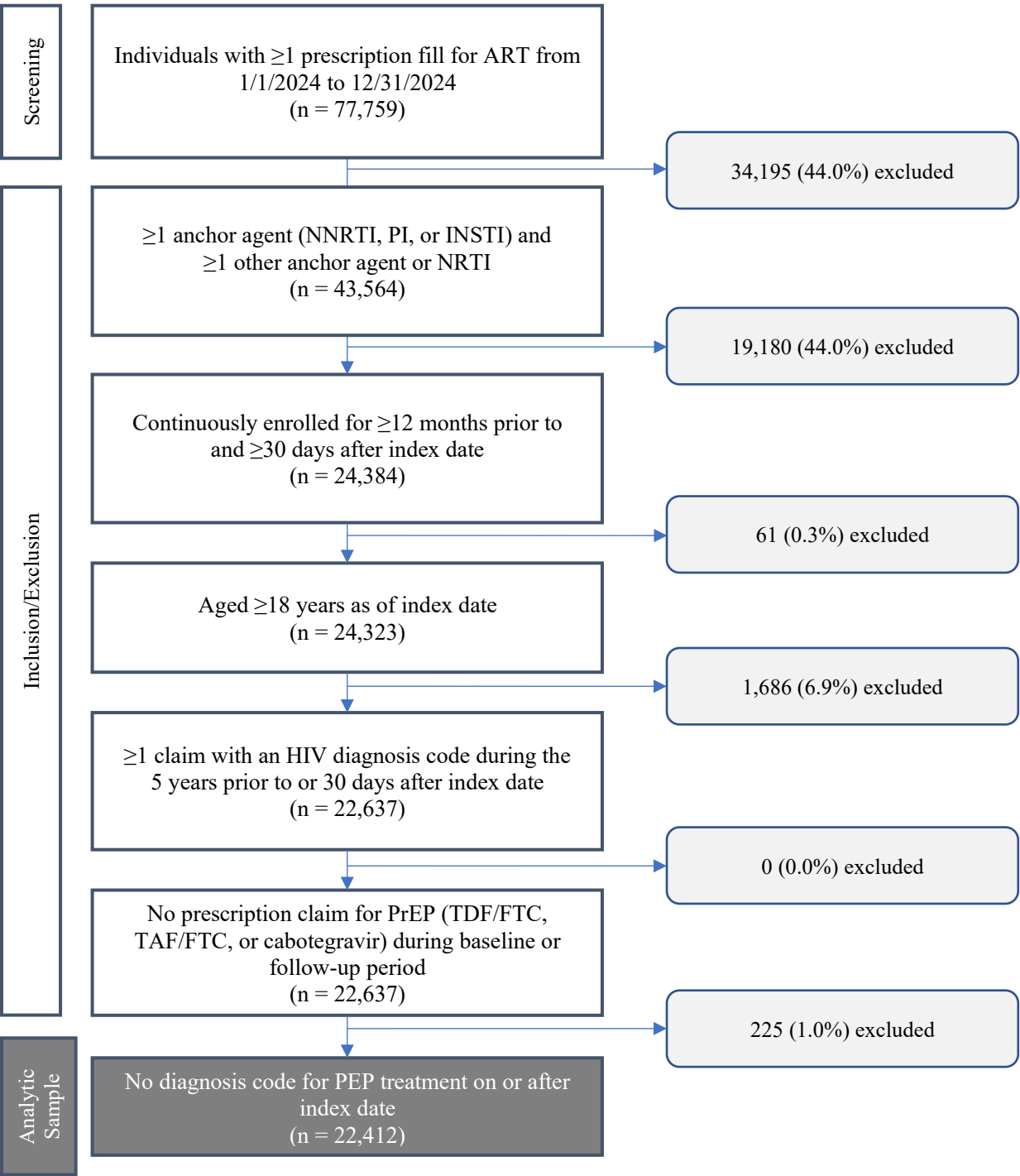
^a N's represent the total number of comedications. They may exceed the total number of patients who received each ART regimen because some patients received more than one comedication. Comedication classes based on AHFS classifications.

^b Data not presented due to small sample (n<5).

^c Non-standard regimens consisting of less common combinations of antiretroviral agents.

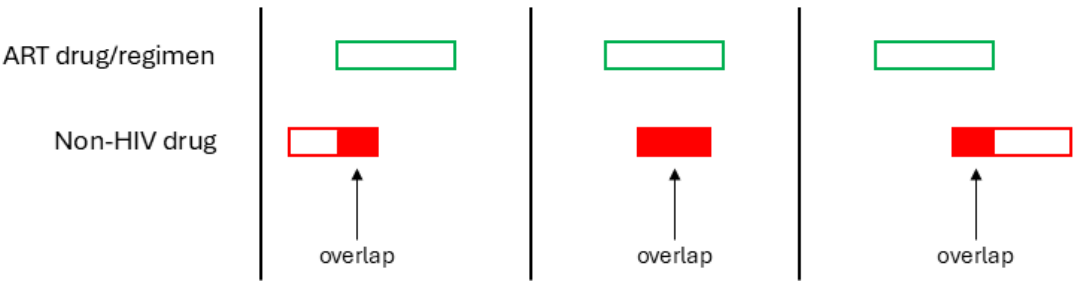
Abbreviations: 3TC, lamivudine; ART, antiretroviral therapy; BIC, bictegravir; C, cobicistat; CAB, cabotegravir; DDI, drug-drug interaction; DOR, doravirine; DRV, darunavir; DTG, dolutegravir; EFV, efavirenz; EVG, elvitegravir; FTC, emtricitabine; NA, not applicable; NR, not reported; PLWH, people living with HIV; RAL, raltegravir; RPV, rilpivirine; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate.

Figure S1. Attrition diagram



Abbreviations: ART, antiretroviral therapy; FTC, emtricitabine; INSTI, integrase strand transfer inhibitor; NNRTI, non-nucleoside reverse transcriptase inhibitor; NRTI, nucleoside reverse transcriptase inhibitor; PEP, post exposure prophylaxis; PI, protease inhibitor; PrEP, pre exposure prophylaxis; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate

Figure S2. Identification of comedications that overlap with the index ART^a



Abbreviation: ART, antiretroviral therapy.
^aA comedication was defined as any non-HIV medication whose days' supply overlapped with the index ART for ≥ 1 day within the first 30 days after the index ART agent/regimen, regardless of the sequence of the two prescriptions. Reference source not found.. For comedications, the end date of a pharmacy claim was calculated by adding days' supply to its fill date.