

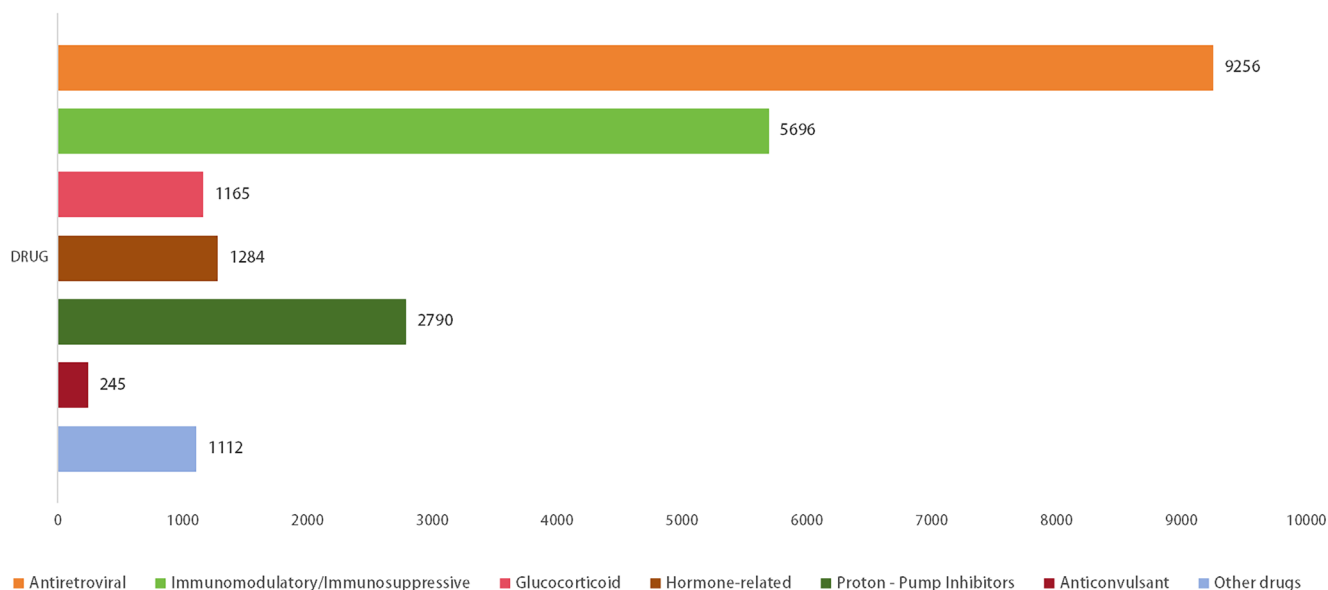
Supplementary Table S1. 2x2 table for disproportionality analysis.

	Target AEs	Other AEs
Targeted drug	a	b
Other drugs	c	d

Supplementary Table S2. Signal detection methods, formulas, and generation criteria

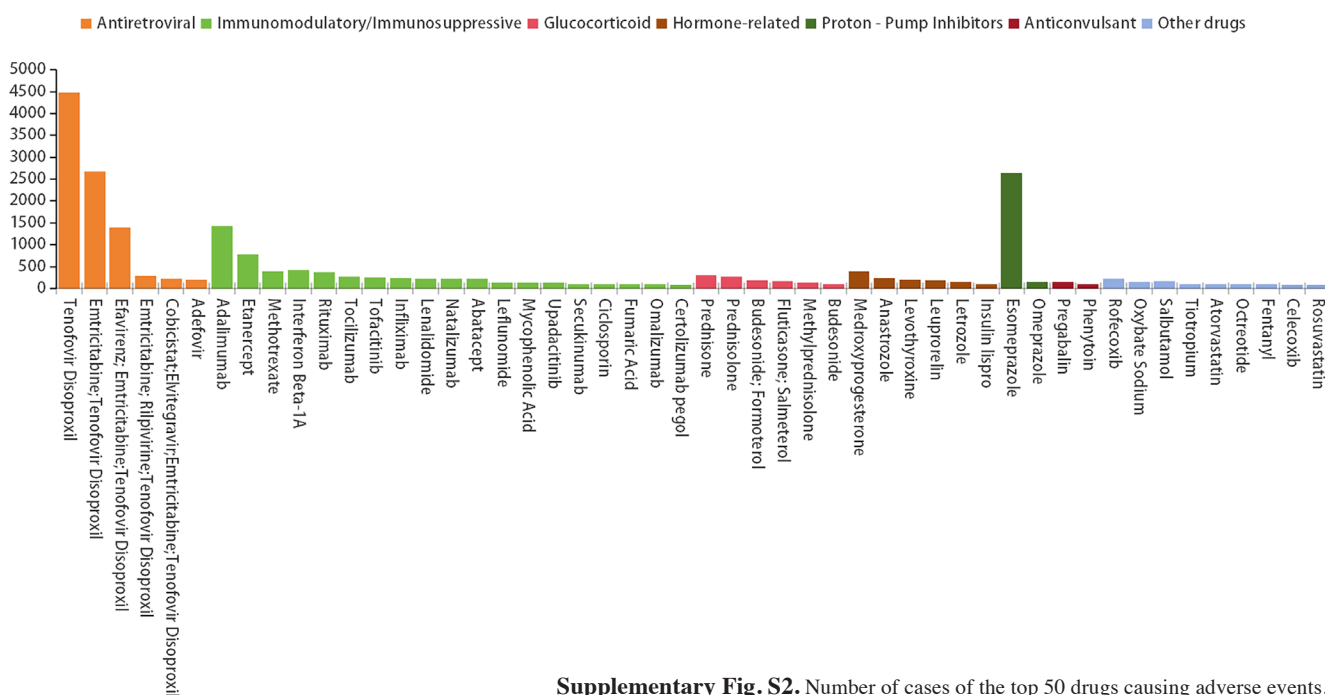
Method	Formula	Threshold
ROR	$ROR = \frac{a/c}{b/d}$ $95\%CI = e^{\ln(ROR) \pm 1.96 \sqrt{\frac{1}{a} + \frac{1}{b} + \frac{1}{c} + \frac{1}{d}}}$	$a \geq 3, 95\%CI(\text{lower limit}) > 1$
PRR	$PRR = \frac{a/(a+b)}{c/(c+d)}$ $95\%CI = e^{\ln(PRR) \pm 1.96 \sqrt{\frac{1/a+1/b}{a+b} + \frac{1/c+1/d}{c+d}}}$	$a \geq 3, 95\%CI(\text{lower limit}) > 1$

Number of cases of adverse events caused by the top 50 drug classes



Supplementary Fig. S1. Number of cases of adverse events caused by the top 50 drug classes.

Number of cases of the top 50 drugs causing adverse events



Supplementary Fig. S2. Number of cases of the top 50 drugs causing adverse events.

Supplementary Table S3. Top 50 drug categories.

Category	Drug	n.
Anti-retroviral	Tenofovir disoproxil	4,471
	Emtricitabine;tenofovir disoproxil	2,674
	Efavirenz; emtricitabine;tenofovir disoproxil	1,395
	Emtricitabine; rilpivirine;tenofovir disoproxil	290
	Cobicistat;elvitegravir;emtricitabine;tenofovir disoproxil	222
	Adefovir	204
Immunomodulatory/ Immunosuppressive	Adalimumab	1,427
	Etanercept	778
	Methotrexate	385
	Interferon beta-1A	428
	Rituximab	366
	Tocilizumab	267
	Tofacitinib	249
	Infliximab	231
	Lenalidomide	224
	Natalizumab	228
	Abatacept	217
	Leflunomide	142
	Mycophenolic acid	138
	Upadacitinib	133
	Secukinumab	101
	Ciclosporin	95
	Fumaric Acid	101
Omalizumab	97	
Certolizumab pegol	89	
Glucocorticoid	Prednisone	298
	Prednisolone	275
	Budesonide; formoterol	186
	Fluticasone; salmeterol	169
	Methylprednisolone	128
	Budesonide	109
Hormone-related	Medroxyprogesterone	390
	Anastrozole	245
	Levothyroxine	204
	Leuprorelin	193
	Letrozole	154
	Insulin lispro	98
Proton pump inhibitors	Esomeprazole	2,642
	Omeprazole	148
Anti-convulsant	Pregabalin	146
	Phenytoin	99
Other drugs	Rofecoxib	213
	Oxybate sodium	149
	Salbutamol	171
	Tiotropium	106
	Atorvastatin	102
	Octreotide	100
	Fentanyl	93
	Celecoxib	89
Rosuvastatin	89	

Supplementary Table S4. Top 10 drugs with the highest number of adverse events.

Drug	n.	ROR (95% CI)	PRR (95% CI Limit)
Tenofovir disoproxil	4,471	164.12 (158.45–170)	128.02 (489,143.07)
Emtricitabine;tenofovir disoproxil	2,674	85.12 (81.59–88.79)	73.73 (176,860.07)
Esomeprazole	2,464	20.35 (19.52–21.22)	19.65 (40,477.01)
Adalimumab	1,427	1.25 (1.18–1.31)	1.25 (66.43)
Efavirenz;emtricitabine;tenofovir disoproxil	1,395	95.48 (90.09–101.19)	80.87 (105,669.99)
Etanercept	778	1.23 (1.11–1.36)	1.23 (14.84)
Interferon beta-1a	428	1.41 (1.28–1.55)	1.41 (50.32)
Medroxyprogesterone	390	8.92 (8.06–9.86)	8.78 (2,662.09)
Methotrexate	385	1.7 (1.54–1.88)	1.7 (108.86)
Rituximab	366	2.21 (2–2.45)	2.21 (239.87)

Supplementary Table S5. Top 10 drugs with the highest signal strength for adverse events.

Drug	n.	ROR (95% CI)	PRR (95% CI Limit)
Tenofovir disoproxil	4,471	164.12 (158.45–170)	128.02 (489,143.07)
Efavirenz;emtricitabine;tenofovir disoproxil	1,395	95.48 (90.09–101.19)	80.87 (105,669.99)
Emtricitabine;tenofovir disoproxil	2,674	85.12 (81.59–88.79)	73.73 (176,860.07)
Emtricitabine;rilpivirine;tenofovir disoproxil	290	78.11 (68.99–88.43)	67.78 (18,952.32)
Adefovir	204	63.7 (55.05–73.72)	56.66 (11,109.22)
Cobicistat;elvitegravir;emtricitabine;tenofovir disoproxil	222	60.57 (52.68–69.65)	54.18 (11,534.59)
Cobicistat;elvitegravir;emtricitabine;tenofovir	43	27.15 (19.97–36.91)	25.81 (1,026.01)
Pamidronic acid	161	21.47 (18.33–25.15)	20.63 (2,998.89)
Esomeprazole	2,464	20.35 (19.52–21.22)	19.65 (40,477.01)
Alendronic acid;colecalciferol	31	12.47 (8.73–17.81)	12.19 (318.74)