Injecting drug users do not have the same antiretroviral coverage and treatment outcome as others

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Background:

As the benefits of early initiation of antiretroviral treatment (ART) became known, treatment coverage of all patients of the Government HIV Clinic has increased from 65% in 2008 to 83% in 2011. We studied the extent of coverage among different risk groups, and factors associated with outcome among those who were on treatment.

Methods:

Using chi-square test, we examined the difference of ART coverage among major risk groups. We also used ANOVA and logistic regression to study factors associated with outcome.

Results:

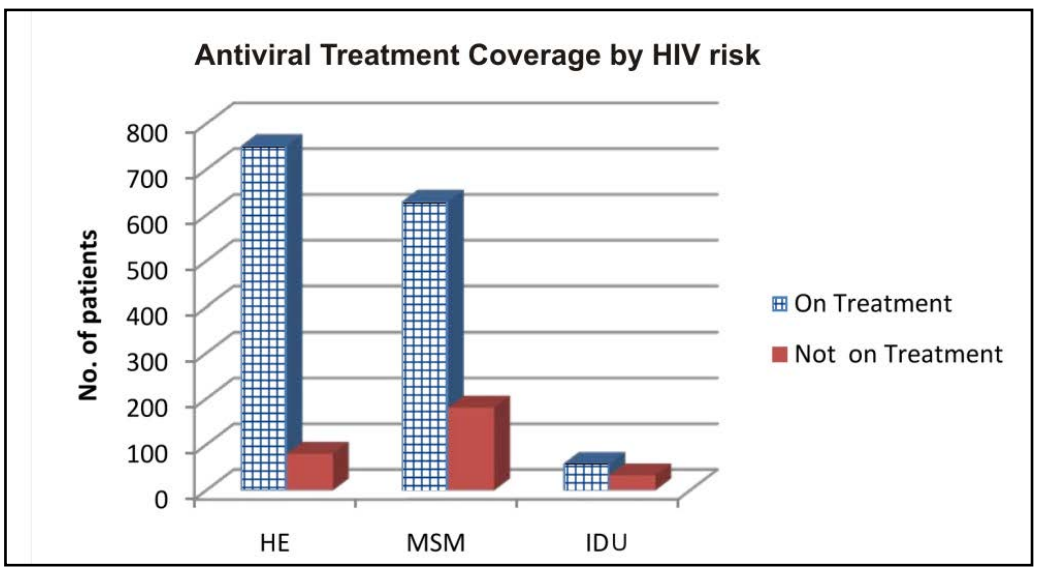
In 2011, there were 1,733 active patients with known risk factors (84% male). Mean age was 44 years (SD 11). 48% were heterosexual (HE), 47% were men who had sex with men (MSM), and 5% injecting drug users (IDU). The proportion on treatment was 90%, 78% and 64% respectively. Among untreated patients, IDU had the lowest median CD4 count of 364/uL (444/uL in HE and 427/uL in MSM). IDU also had the highest proportion of those with a CD4 count < 350/uL at 46% (29% in HE and 30% in MSM). Among the treated patients, virologic success with viral load < 75 copies/ml was found in 89% HE, 87% MSM, and 79% IDU. The corresponding median CD4 count was 446/uL, 452/uL and 296/uL respectively. In multivariate analysis, it was shown that being IDU was the only independent factor of an inferior CD4 count, but not for virologic suppression.

Conclusions:

Being IDU is less likely to be on antiretroviral and having a good immunologic response to it. This could have resulted from factors such as physician bias, patient beliefs, nonadherence, social barriers, and drug-drug interactions. Studies are necessary to identify the underlying factors if full treatment benefits were to be realized across all patients.

Demographic of active patients (n=1733)		
Gender	M	1458 (84.1%)
	F	275 (15.9%)
Age	Mean	43.9
	Median	43.0
	SD	11.3
Risk	HE	831 (48.0%)
	MSM	811 (46.8%)
	IDU	91 (5.3%)
Ethnicity	CH	1401 (80.8%)
	Non - CH	332 (19.2%)
CD4(MM^3)	<200	159 (9.2%)
	200 - 349	380 (21.9%)
	350 - 499	523 (30.2%)
	>=500	670 (38.7%)
VL(cp/ml)	<=75	1266 (73.1%)
	>75	466 (26.9%)

		On Treatment (n=1439)	Not on Treatment (n=294)
Gender	M	1196 (83.1%)	262 (89.1%)
	F	243 (16.9%)	32 (10.9%)
Age		(0.0%)	(0.0%)
	<30	81 (5.6%)	72 (24.5%)
	30-39	371 (25.8%)	110 (37.4%)
	40-49	552 (38.4%)	79 (26.9%)
	>=50	435 (30.2%)	33 (11.2%)
Risk		(0.0%)	(0.0%)
	HE	751 (52.2%)	80 (27.2%)
	MSM	630 (43.8%)	181 (61.6%)
	IDU	58 (4.0%)	33 (11.2%)
Ethnicity		(0.0%)	(0.0%)
	CH	1180 (82.0%)	221 (75.2%)
	Non - CH	259 (18.0 %)	73 (24.8%)
CD4(MM^3)		(0.0%)	(0.0%)
	<200	138 (9.6%)	21 (7.1%)
	200 - 349	309 (21.5%)	71 (24.1%)
	350 - 499	427 (29.7%)	96 (32.7%)
	>=500	565 (39.3%)	105 (35.7%)
VL(cp/ml)		(0.0%)	(0.0%)
	<=75	1257 (87.4%)	9 (3.1%)
	>75	181 (12.6%)	285 (96.9%)



		HE		MSM		IDU	
		On ART (n=751)	Not On ART (n=80)	On ART (n=630)	Not On ART (n=181)	On ART (n=58)	Not On ART (n=33)
Gender	M	515 (68.6%)	50 (62.5%)	629 (99.8%)	181 (100.0%)	52 (89.7%)	31 (93.9%)
	F	236 (31.4%)	30 (37.5%)	1 (0.2%)	0	6 (10.3%)	2 (6.1%)
Age	<30	24 (3.2%)	15 (18.8%)	47 (7.5%)	53 (29.3%)	10 (17.2%)	4 (12.1%)
	30-39	142 (18.9%)	26 (32.5%)	202 (32.1%)	65 (35.9%)	27 (46.6%)	19 (57.6%)
	40-49	273 (36.4%)	24 (30.0%)	265 (42.1%)	49 (27.1%)	14 (24.1%)	6 (18.2%)
	>=50	312 (41.5%)	15 (18.8%)	116 (18.4%)	14 (7.7%)	7 (12.1%)	4 (12.1%)
Ethnicity	CH	591 (78.7%)	46 (57.5%)	566 (89.8%)	162 (89.5%)	23 (39.7%)	13 (39.4%)
	Non-CH	160 (21.3%)	34 (42.5%)	64 (10.2%)	19 (10.5%)	35 (60.3%)	20 (60.6%)
CD4 (mm^3)	<350	236 (31.4%)	23 (28.8%)	177 (28.1%)	54 (29.8%)	34 (58.6%)	15 (45.5%)
	>=350	515 (68.6%)	57 (71.3%)	453 (71.9%)	126 (69.6%)	24 (41.4%)	18 (54.5%)
CD4 (mm^3)	Mean	468.1	456.7	473.5	462.2	313.5	414.7
	Median	446.0	444.0	452.5	427.0	296.0	364.0
VL (cp/ml)	<=75	665 (88.5%)	5 (6.3%)	546 (86.7%)	3 (1.7%)	46 (79.3%)	1 (3.0%)
	>75	85 (11.3%)	75 (93.8%)	84 (13.3%)	178 (98.3%)	12 (20.7%)	32 (97.0%)