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Table 1: Baseline characteristics of study population

Data are column percent unless otherwise noted	**FIB-4 (category of liver fibrosis)**			**Missing FIB-4**
	<1.45 (Minimal)	**1.45-3.25 (Moderate)**	**>3.25 (Advanced)**	
Demographics				
N (%)	57,309 (59)	16,360 (17)	3,679 (4)	19,025 (20)
Mean age (SD)	47 (9)	54 (9)	53 (8)	48 (10)
Male	96	98	99	97
Race				
White	40	35	37	38
Black	47	53	50	47
Hispanic	8	7	9	7
Other	5	5	4	8
HIV				

Table 1: Baseline characteristics of study population

Data are column percent unless otherwise noted	**FIB-4 (category of liver fibrosis)**			**Missing FIB-4**
	<1.45 (Minimal)	**1.45-3.25 (Moderate)**	**>3.25 (Advanced)**	
HIV infected	29	50	61	16
HIV-1 RNA ≥500 copies/ml (% of HIV+)	48	53	56	22
CD4+ T-cell count<500 cells/mm^3 (% of HIV+)	54	65	71	17
On any ART (% of HIV+)	75	78	78	35
Liver				
HCV	13	35	65	8
CVD risk factors				
Diabetes	13	15	18	8
Systolic blood pressure (BP)/mmHg				
<140 no BP medication	40	35	33	44
<140 on BP medication	34	36	37	20
≥140 on BP medication	18	22	22	12
≥140 no BP medication	6	6	6	10
LDL cholesterol ≥160 mg/dL	10	6	3	5
HDL cholesterol <40 mg/dL	37	37	40	16
Triglycerides ≥ 200 mg/dL	23	21	19	9

Table 1: Baseline characteristics of study population

Data are column percent unless otherwise noted	**FIB-4 (category of liver fibrosis)**			**Missing FIB-4**
	<1.45 (Minimal)	**1.45-3.25 (Moderate)**	**>3.25 (Advanced)**	
Smoking				
Never smoker	23	20	13	17
Current smoker	37	38	46	27
Former smoker	11	13	11	9
Obese, BMI>30 kg/m^2	34	23	16	27
Cocaine	15	21	25	15
Alcohol abuse/dependence (ever)	24	32	51	23
Antecedent incident AMI	1.5	2.0	1.6	1.0
All variables had complete data except the following: LDL cholesterol data were available for 74559, HDL cholesterol (75543), triglycerides (76046), SBP (92961), smoking (65118) BMI (91534), CD4 count (25327), and HIV-1 RNA (26048). p-values across FIB-4 groups (excluding missing FIB-4 group) were all <0.01				

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Table 2: Hazard ratio (95% confidence interval) for the association between liver injury and incident congestive heart failure

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Liver fibrosis						
FIB-4<1.45	1 (ref)	1 (ref)	1 (ref)	1 (ref)	1 (ref)	1 (ref)
FIB-4 1.45-3.25	1.78 (1.65-1.92)	1.20 (1.11-1.30)	1.27 (1.17-1.38)	1.27 (1.17-1.38)	1.17 (1.07-1.27)	1.17 (1.07-1.27)
FIB-4>3.25	2.74 (2.39-3.13)	1.89 (1.62-2.19)	1.93 (1.67-2.22)	1.93 (1.68-2.22)	1.66 (1.43-1.93)	1.65 (1.43-1.92)
Age (per 10 years)		1.99 (1.92-2.06)	1.79 (1.72-1.86)	1.75 (1.69-1.82)	1.78 (1.72-1.85)	1.84 (1.76-1.91)
Race/ethnicity						
White		1 (ref)	1 (ref)	1 (ref)	1 (ref)	1 (ref)
Black		1.29 (1.21-1.39)	1.21 (1.13-1.3)	1.22 (1.14-1.31)	1.20 (1.11-1.28)	1.17 (1.09-1.25)
Hispanic		0.75 (0.66-0.87)	0.73 (0.63-0.84)	0.73 (0.64-0.84)	0.72 (0.63-0.83)	0.72 (0.63-0.83)
Other		0.77 (0.64-0.93)	0.86 (0.71-1.04)	0.88 (0.72-1.06)	0.89 (0.74-1.08)	0.91 (0.75-1.1)
Systolic blood pressure (BP)/mmHg						
<140 no BP meds			1 (ref)	1 (ref)	1 (ref)	1 (ref)
<140 on BP meds			1.54 (1.4-1.7)	1.53 (1.39-1.69)	1.56 (1.42-1.72)	1.53 (1.39-1.68)
≥140 on BP meds			2.33 (2.12-2.57)	2.29 (2.08-2.52)	2.37 (2.15-2.60)	2.27 (2.06-2.5)
≥140 no BP meds			1.56 (1.32-1.85)	1.57 (1.33-1.85)	1.61 (1.36-1.91)	1.58 (1.34-1.87)

Table 2: Hazard ratio (95% confidence interval) for the association between liver injury and incident congestive heart failure

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Smoking						
Never smoker			1 (ref)	1 (ref)	1 (ref)	1 (ref)
Current smoker			1.59 (1.43-1.76)	1.57 (1.41-1.76)	1.52 (1.36-1.70)	1.5 (1.33-1.68)
Former smoker			1.14 (0.98-1.32)	1.14 (0.98-1.33)	1.13 (0.97-1.31)	1.12 (0.96-1.3)
Diabetes			2.26 (2.10-2.43)	2.22 (2.06-2.39)	2.24 (2.09-2.41)	2.19 (2.03-2.36)
LDL cholesterol ≥160 mg/dL			1.04 (0.96-1.12)	1.03 (0.95-1.12)	1.00 (0.92-1.09)	0.99 (0.91-1.07)
HDL cholesterol <40 mg/dL			1 (0.89-1.13)	0.99 (0.88-1.11)	1.01 (0.90-1.14)	1.01 (0.9-1.14)
Triglycerides ≥200 mg/dL			1.13 (1.05-1.22)	1.11 (1.03-1.2)	1.10 (1.02-1.18)	1.08 (1-1.17)
Antecedent incident AMI				3.04 (2.7-3.43)	2.98 (2.64-3.35)	2.99 (2.66-3.37)
HIV/Hepatitis C (HCV)						
HIV & HCV					1 (ref)	1 (ref)

Table 2: Hazard ratio (95% confidence interval) for the association between liver injury and incident congestive heart failure

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
uninfected						
HCV infected only					1.15 (1.03-1.28)	1.1 (0.98-1.23)
HIV infected only					1.20 (1.10-1.31)	1.29 (1.18-1.41)
HIV & HCV co-infected					1.62 (1.46-1.80)	1.66 (1.49-1.85)
Alcohol abuse or dependence						1.19 (1.09-1.31)
Cocaine abuse or dependence						1.07 (0.96-1.19)
Body mass index ≥30/kg/m^2						1.27 (1.18-1.37)

Model 1: unadjusted

Model 2: adjusted for age and race/ethnicity

Model 3: adjusted for Model 2 covariates plus Framingham cardiovascular disease risk factors (treated or untreated systolic blood pressure, smoking, diabetes, LDL cholesterol, HDL cholesterol and triglycerides)

Table 2: Hazard ratio (95% confidence interval) for the association between liver injury and incident congestive heart failure

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Model 4: adjusted for Model 3 covariates plus antecedent incident acute myocardial infarction Model 5: adjusted for Model 4 covariates plus HIV/HCV status Model 6: adjusted for Model 5 covariates plus alcohol and cocaine abuse or dependence and body mass index						

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Table 3: Hazard ratios (95% confidence intervals) for the association between liver injury and incident congestive heart failure stratified by HIV and hepatitis C status

	HIV and HCV uninfected	**HCV infected only**	**HIV infected only**	**HIV and HCV co-infected**
N (# of CHF events)	57594 (2097)	8354 (424)	21449 (760)	8976 (563)
Liver fibrosis				
FIB-4<1.45	1 (ref)	1 (ref)	1 (ref)	1 (ref)
FIB-4 1.45-3.25	1.08 (0.96-1.22)	1.30 (1.05-1.62)	1.27 (1.05-1.52)	1.15 (0.93-1.41)
FIB-4>3.25	1.56 (1.19-2.05)	1.81 (1.34-2.44)	1.74 (1.30-2.33)	1.66 (1.30-2.12)
All models adjusted for age, race-ethnicity, systolic blood pressure and blood pressure medication, smoking, diabetes, LDL-cholesterol, HDL-cholesterol, triglycerides, antecedent incident AMI, alcohol abuse/dependence, cocaine abuse/dependence, body mass index. Models including HIV infected participants additionally adjusted for HIV-1 RNA, CD4+ T cell count, and antiretroviral therapy regimen				

Table 4: Hazard ratios (95% confidence intervals) for the association between liver injury and incident congestive heart failure in the full cohort compared to a sample excluding participants with hepatic decompensation		
	Hazard ratio of CHF (95% confidence interval)	
	Unadjusted	**Adjusted***
Full cohort (N=96,373)		
FIB-4<1.45	1 (ref)	1 (ref)
FIB-4 1.45-3.25	1.78 (1.65-1.92)	1.17 (1.07-1.27)
FIB-4>3.25	2.74 (2.39-3.13)	1.65 (1.43-1.92)
Cohort excluding participants with hepatic decompensation (N=94,601)		
FIB-4<1.45	1 (ref)	1 (ref)
FIB-4 1.45-3.25	1.76 (1.63-1.91)	1.15 (1.05-1.25)
FIB-4>3.25	2.62 (2.21-3.10)	1.56 (1.33-1.84)
*Model adjusted for age and race/ethnicity, Framingham cardiovascular disease risk factors (treated or untreated systolic blood pressure, smoking, diabetes, LDL cholesterol, HDL cholesterol and triglycerides), antecedent incident acute myocardial infarction, HIV/HCV status, alcohol abuse or dependence, cocaine abuse or dependence and body mass index		

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