

HIV Infection is Associated with Increased Risk for Acute Exacerbation of COPD

Allison A. Lambert, MD MHS¹; Gregory D. Kirk, MD, PhD^{2,3}; Jacquie Astemborski, MHS³; Shruti H. Mehta, PhD MPH³; Robert A. Wise, MD¹; M. Bradley Drummond, MD MHS¹

¹Department of Medicine; Division of Pulmonary and Critical Care; Johns Hopkins University, Baltimore, MD, USA; ²Department of Medicine; Division of Infectious Diseases; Johns Hopkins University, Baltimore, MD, USA; ³Department of Epidemiology; Johns Hopkins University, Baltimore, MD, USA

Table, S1. Characteristics associated with AECOPD in Univariate Analysis

Covariate	Unadjusted OR (95% CI)	p-value
Age, per 10 year increase	0.84 (0.53, 1.31)	0.433
Female	3.04 (1.52, 6.08)	0.002
Black race	1.04 (0.33, 3.27)	0.940
BMI	1.02 (0.95, 1.09)	0.643
Smoking history, per 1 pack-year	1.01 (1.00, 1.03)	0.144
Current IDU	0.74 (0.38, 1.44)	0.368
Comorbid disease†	1.96 (1.02, 3.76)	0.042
Severity of Airflow Obstruction*		
Mild (FEV1 ≥80% predicted)	Reference	
Moderate (FEV1 50-79% predicted)	2.81 (1.30, 6.07)	0.009
Severe (FEV1 <50% predicted)	5.62 (2.21, 14.28)	<0.001
Prior AECOPD*	4.46 (1.99, 10.00)	<0.001
HCV Status		
HCV antibody negative	Reference	
HCV antibody seropositive*	1.00 (0.39, 2.58)	0.996
HCV antibody negative	Reference	
Undetectable HCV RNA	1.66 (0.52, 5.32)	0.395
Detectable HCV RNA	0.76 (0.28, 2.05)	0.585
HIV Status		
HIV-Uninfected	Reference	
HIV-Infected	2.18 (1.07, 4.44)	0.032
HIV-Uninfected	Reference	
HIV RNA Undetectable (<50 copies/mL)	2.83 (1.27, 6.33)	0.011
HIV RNA Detectable (≥50 copies/mL)§	1.49 (0.59, 3.80)	0.398
HIV-Uninfected	Reference	
CD4 count ≥ 350 cells/mm ³	3.98 (1.85, 8.59)	<0.001
CD4 count <350 cells/mm ³	1.04 (0.38, 2.86)	0.935
HIV-Infected, not currently on HAART	Reference	
HIV-Infected, currently on HAART	0.75 (0.27, 2.08)	0.579
HIV-Infected, never HAART use	Reference	
HIV-Infected, ever HAART use	0.57 (0.17, 1.96)	0.374

* In previous 6 months

† Self-reported treatment for [diabetes, hypertension, hyperlipidemia, heart disease, renal disease, seizures disorder, stroke, or cancer] in the last 6 months

‡ Among HCV seropositive participants with detectable HCV RNA.

§ Among HIV-infected participants with detectable HIV RNA.

Abbreviations: AECOPD, Acute Exacerbation of Chronic Obstructive Pulmonary Disease; BMI, Body Mass Index; CI, Confidence Interval; FEV1, Forced Expiratory Volume in 1 second; HAART, Highly Active Antiretroviral Therapy; HCV, Hepatitis C Virus; HIV, Human Immunodeficiency Virus; IDU; Injection Drug User; OR, Odds Ratio; RNA, ribonucleic acid