

Chronic Obstructive Pulmonary Diseases: Journal of the COPD Foundation



Online Supplementary Material

Comorbidities of COPD Have a Major Impact on Clinical Outcomes, Particularly in African Americans

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e-Table 1: Clinical Center Institutional Review Board Approvals

Clinical Center	Institution Title	Protocol Number
National Jewish Health	National Jewish Institutional Review Board	HS-1883a
Brigham and Women's Hospital	Partners Human Research Committee	2007-P-000554/2; BWH
Baylor College of Medicine	Institutional Review Board for Baylor College of Medicine and Affiliated Hospitals	H-22209
Michael E. DeBakey VAMC	Institutional Review Board for Baylor College of Medicine and Affiliated Hospitals	H-22202
Columbia University Medical Center	Columbia University Medical Center Institutional Review Board	IRB-AAAC9324
Duke University Medical Center	The Duke University Health System Institutional Review Board for Clinical Investigations (DUHS IRB)	Pro00004464
Johns Hopkins University	Johns Hopkins Medicine Institutional Review Boards (JHM IRB)	NA_00011524
Los Angeles Biomedical Research Institute	The John F. Wolf, MD Human Subjects Committee of Harbor-UCLA Medical Center	12756-01
Morehouse School of Medicine	Morehouse School of Medicine Institutional Review Board	07-1029
Temple University	Temple University Office for Human Subjects Protections Institutional Review Board	11369
University of Alabama at Birmingham	The University of Alabama at Birmingham Institutional Review Board for Human Use	FO70712014
University of California, San Diego	University of California, San Diego Human Research Protections Program	070876
University of Iowa	The University of Iowa Human Subjects Office	200710717
Ann Arbor Veterans Administration	VA Ann Arbor Healthcare System Institutional Review Board	PCC 2008-110732
University of Minnesota	University of Minnesota Research Subjects' Protection Programs (RSPP)	0801M24949
University of Pittsburgh	University of Pittsburgh Institutional Review Board	PRO07120059
University of Texas Health Sciences Center at San Antonio	UT Health Science Center San Antonio Institutional Review Board	HSC20070644H
Health Partners Research Foundation	Health Partners Research Foundation Institutional Review Board	07-127
University of Michigan	Medical School Institutional Review Board (IRBMED)	HUM00014973
Minneapolis VA Medical Center	Minneapolis VAMC IRB	4128-A
Fallon Clinic	Institutional Review Board/Research Review Committee Saint Vincent Hospital – Fallon Clinic – Fallon Community Health Plan	1143

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e-Table 2: Definitions of Comorbid Conditions as Assessed in COPDGene®

Corbid condition	Definition
Cardiovascular	
CHD	Report ^a of angina, coronary artery disease, heart attack, bypass surgery or angioplasty procedure.
CHF	Report of congestive heart failure, systolic or diastolic in nature.
PVD	Report of peripheral vascular disease.
Stroke or TIA	Report of stroke or transient ischemic attack.
Hypertension	Report of high blood pressure.
Metabolic	
DM	Report of diabetes mellitus.
High cholesterol	Report of high cholesterol.
Obesity	Measured body mass index of greater than or equal to 30.
Musculoskeletal	
Osteoarthritis	Report of osteoarthritis.
Osteoporosis	Report of osteoporosis or report of compression fractures in back
Gastrointestinal	
GERD	Report of gastroesophageal reflux disease.
Stomach ulcers	Report of stomach ulcers.
Pulmonary/Allergy	
Hay fever	Report of hay fever or treatment of hay fever.
Sleep Apnea	Report of sleep apnea or treatment of sleep apnea.
Other	
Cancer	Report of cancer of bladder, breast, colon, or prostate. Notably, individuals with active cancer undergoing treatment or with suspected lung cancer were excluded from the study.

^aThroughout this table, report is defined as patient report of physician diagnosis.

Abbreviations: CHD, coronary heart disease; CHF, congestive heart failure; PVD, peripheral vascular disease; TIA, transient ischemic attack; DM, diabetes mellitus; GERD, gastroesophageal reflux disease

e-Table 3: Specific Comorbidity Prevalence Comparing Cases (GOLD 2-4) to Controls

Comorbidity	COPD (N=3,690)	Controls (N=4,388)	p-value
Cardiovascular			
CHD	608 (17)	329 (8)	<0.001
CHF	198 (5)	59 (1)	<0.001
PVD	126 (3)	56 (1)	<0.001
Stroke	220 (6)	122 (3)	<0.001
Hypertension	1868 (51)	1594 (36)	<0.001
Metabolic			
Diabetes	482 (13)	507 (12)	0.001
High cholesterol	1529 (41)	1505 (34)	<0.001
Obesity	1227 (33)	1615 (37)	<0.001
Musculoskeletal			
Osteoarthritis	764 (21)	716 (16)	<0.001
Osteoporosis	640 (17)	373 (9)	<0.001
Gastrointestinal			
GERD	1116 (30)	891 (20)	<0.001
Stomach ulcers	372 (10)	293 (7)	<0.001
Pulmonary/Allergy			
Hay Fever	900 (24)	1016 (23)	0.280
Sleep Apnea	631 (17)	505 (12)	<0.001
Other			
Cancer	250 (7)	157 (4)	<0.001

Note: All comparisons unadjusted and displayed as N (%)

Abbreviations: CHD, coronary heart disease; CHF, congestive heart failure; PVD, peripheral vascular disease; GERD, gastroesophageal reflux disease