

The St. George's Respiratory Questionnaire Definition of Chronic Bronchitis May Be a Better Predictor of COPD Exacerbations Compared With the Classic Definition

Victor Kim, MD; Huaqing Zhao, PhD; Elizabeth Regan, MD; MeiLan K. Han, MD; Barry J. Make, MD; James D. Crapo, MD; Paul W. Jones, MBBS; Jeffrey L. Curtis, MD; Edwin K. Silverman, MD, PhD; Gerard J. Criner, MD; and the COPD Gene Investigators

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e-Appendix 1.

Institutional Review Board Details:

The Institutional Review Board (IRB) of each of the 21 participating centers approved the COPDGene Study, and all subjects provided written informed consent. Ann Arbor VA IRB (2014-060462), IRB for Baylor College of Medicine (H22209), Partners Human Research Committee (2007-P000554), Columbia University IRB (AAAC9324), Duke University Health System IRB (Pro00004464), Johns Hopkins Medicine IRB (NA-00011524), IRB for Human Subjects Research for Baylor College of Medicine (H22202) John F. Wolf, M.D. Human Subjects Committee (12756-03) Minneapolis VA Health Care System (4128-A) Health Partners IRB (07-127), Morehouse School of Medicine IRB (97826), National Jewish Health IRB (HS-1883a) Reliant Medical Group IRB (1441), Temple IRB (21659), University of Alabama at Birmingham for Human Use (F070712014), University of California, San Diego Human Research Protections Program (140070), University of Iowa IRB (2007 0712014), University of Michigan Medical School IRB (HUM00014973), University of Minnesota IRB (0801M24949), University of Pittsburgh IRB (#07120059) and UT Health Science Center San Antonio IRB (HSC 2007 0644H). The National Jewish Health IRB (HS-1825), Partners HealthCare Research Committee (2007P000554), Temple IRB (20160339), and University of Pittsburgh IRB (PRO15100455) approved additional medical record review and the data analysis.

e-Table 1. Inhaled Medications by GOLD Stage.

| Variable | SGRQ CB- | SGRQ CB+ | P-value | Classic CB- | Classic CB+ | P-value |
|-------------------|----------|----------|-------------------|-------------|-------------|-------------------|
| <i>GOLD 0</i> | n=2848 | n=741 | | n=3178 | n=433 | |
| LAMA (%) | 0.6 | 2.1 | 0.002 | 0.8 | 2.4 | 0.005 |
| LABA (%) | 0.0 | 0.4 | 0.029 | 0.1 | 0.2 | 0.396 |
| ICS (%) | 1.0 | 2.5 | 0.005 | 1.0 | 3.5 | <0.0001 |
| ICS+LABA (%) | 2.6 | 5.6 | <0.0001 | 2.6 | 7.5 | <0.0001 |
| ICS+LAMA (%) | 0.0 | 0.1 | 0.368 | 0.0 | 0.5 | 0.039 |
| LABA+LAMA (%) | 0.1 | 0.1 | 0.498 | 0.1 | 0.2 | 0.315 |
| ICS+LABA+LAMA (%) | 0.7 | 2.1 | 0.003 | 0.9 | 1.7 | 0.181 |
| <i>GOLD 1,2</i> | n=1521 | n=847 | | n=1819 | n=555 | |
| LAMA (%) | 7.6 | 8.3 | 0.571 | 7.5 | 8.8 | 0.360 |
| LABA (%) | 0.7 | 1.7 | 0.030 | 0.7 | 2.2 | 0.005 |
| ICS (%) | 3.5 | 5.0 | 0.096 | 3.5 | 6 | 0.012 |
| ICS+LABA (%) | 12.3 | 17.2 | 0.001 | 12.6 | 18.6 | 0.001 |
| ICS+LAMA (%) | 0.9 | 1.7 | 0.115 | 0.9 | 2.2 | 0.022 |
| LABA+LAMA (%) | 0.3 | 1.4 | 0.004 | 0.5 | 1.1 | 0.129 |
| ICS+LABA+LAMA (%) | 9.3 | 16.4 | <0.0001 | 10.1 | 17.4 | <0.0001 |
| <i>GOLD 3,4</i> | n=866 | n=703 | | n=1126 | n=446 | |
| LAMA (%) | 10.6 | 11.6 | 0.568 | 11.0 | 11.2 | 0.928 |
| LABA (%) | 1.9 | 1.5 | 0.555 | 1.9 | 1.2 | 0.383 |
| ICS (%) | 6.6 | 6.7 | 0.918 | 6.8 | 6.3 | 0.819 |
| ICS+LABA (%) | 19.5 | 19.6 | 1.000 | 19.0 | 20.6 | 0.521 |
| ICS+LAMA (%) | 3.0 | 2.8 | 0.878 | 2.9 | 2.8 | 1.000 |
| LABA+LAMA (%) | 3.0 | 3.1 | 1.000 | 3.3 | 2.3 | 0.406 |
| ICS+LABA+LAMA (%) | 46.6 | 41.3 | 0.039 | 45.5 | 40.9 | 0.110 |

Definition of Abbreviations: SGRQ = Saint George's Respiratory Questionnaire; CB = chronic bronchitis; LAMA = long-acting muscarinic antagonist; LABA = long-acting beta agonist; ICS = inhaled corticosteroids.