Appendix Table 1. Complete Characteristics and Outcomes of Patients with AECOPD who were Treated Initially with Quinolones or Macrolides

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<th>Characteristic</th>
<th>Initial Antibiotic</th>
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<td></td>
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<td>Macrolide</td>
</tr>
<tr>
<td></td>
<td>N = 13469</td>
<td>N = 6139</td>
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<tr>
<td><strong>Antibiotics Received During Hospitalization</strong></td>
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<tr>
<td>Macrolide</td>
<td>264 (2)</td>
<td>6139 (100)</td>
</tr>
<tr>
<td>Quinolone</td>
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<tr>
<td>Cephalosporin</td>
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</tr>
<tr>
<td>Tetracycline</td>
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<td>75 (2)</td>
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<td>Other Antibiotics</td>
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<td><strong>Age</strong></td>
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<td>540 (9)</td>
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<td>144 (2)</td>
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<td>569 (9)</td>
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<td>Respiratory Failure</td>
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<td>Value 2</td>
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<td>6-200</td>
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<td>Urban</td>
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<td>Rural</td>
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<td>MidWest</td>
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<td>Northeast</td>
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<td>West</td>
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<td>Profit</td>
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<td>Metastatic cancer</td>
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<td>Depression</td>
<td>1419 (11)</td>
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<td>Renal failure</td>
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<td>Condition</td>
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<td>Psychoses</td>
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<td>Solid tumor w/out metastasis</td>
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<td>Other neurological disorders</td>
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<td>Drug abuse</td>
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<td>Pulmonary circulation disease</td>
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<td>Peripheral vascular disease</td>
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<td>Rheumatoid arthritis/collagen vas</td>
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<td>Acquired immune deficiency syndrome</td>
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<td>Paralysis</td>
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<td>Liver disease</td>
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<td>Obesity</td>
<td>957 (7)</td>
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<tr>
<td>Hypertension</td>
<td>5793 (43)</td>
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<td>Chronic blood loss anemia</td>
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**Diabetes**

<table>
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<th>Condition</th>
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<th>Group 2</th>
<th>p-value</th>
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<tr>
<td>Without chronic complications</td>
<td>2630 (20)</td>
<td>1127 (18)</td>
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<tr>
<td>With chronic complications</td>
<td>298 (2)</td>
<td>116 (2)</td>
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**Outcomes**

<table>
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<th>Outcome</th>
<th>Group 1</th>
<th>Group 2</th>
<th>p-value</th>
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<tr>
<td>Treatment Failure-Death, Ventilation, or readmission for COPD</td>
<td>1090 (8.1)</td>
<td>417 (6.8)</td>
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<tr>
<td>Mortality</td>
<td>200 (1.5)</td>
<td>60 (1.0)</td>
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<td>Readmitted within 30 days (COPD)</td>
<td>780 (5.8)</td>
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<td>Category 2</td>
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<td>--------------------------------------------</td>
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<td>------------</td>
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<tr>
<td>Readmitted within 30 days (All cause)</td>
<td>2415 (17.9)</td>
<td>970 (15.8)</td>
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<tr>
<td>Admission to ICU &gt;2 days after admission</td>
<td>197 (1.5)</td>
<td>90 (1.5)</td>
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<td>155 (1.2)</td>
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<td>Antibiotics for diarrhea</td>
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<td>31 (0.5)</td>
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<td>Allergic Reaction</td>
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<td>16 (0.3)</td>
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<table>
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<th>Length of Stay</th>
<th>Mean (S.D.)</th>
<th>Median</th>
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<tr>
<td>Readmitted within 30 days (All cause)</td>
<td>4.9 (2.6)</td>
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<tr>
<td>Admission to ICU &gt;2 days after admission</td>
<td>4.7 (2.5)</td>
<td>4</td>
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<tr>
<td>Mechanical ventilation begun ≥ day 3</td>
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<td>Antibiotics for diarrhea</td>
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<td>Allergic Reaction</td>
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<th>Hospital Costs ($)</th>
<th>Mean (S.D.)</th>
<th>Median</th>
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<td>Readmitted within 30 days (All cause)</td>
<td>4,317 (2,447)</td>
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<tr>
<td>Admission to ICU &gt;2 days after admission</td>
<td>4,236 (2,396)</td>
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Appendix Table 2. Complete Characteristics and Outcomes of the Propensity Matched Subsample

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<tr>
<td>Managed Care</td>
<td>1194</td>
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<td>Self pay/Uninsured</td>
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<td>Early Tests</td>
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<tr>
<td>Arterial Blood Gas</td>
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John Wiley & Sons, Inc.
<table>
<thead>
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<th></th>
<th>Value 1</th>
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<tr>
<td>Brain natriuretic peptide</td>
<td>737 (13)</td>
<td>694 (12)</td>
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<td>Sputum Culture</td>
<td>20 (0)</td>
<td>16 (0)</td>
<td>0.62</td>
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<td>Pulmonary Function tests</td>
<td>406 (7)</td>
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**Early Medications/Therapies**

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<tr>
<td>Short acting bronchodilators</td>
<td>2969 (53)</td>
<td>2820 (50)</td>
<td>0.005</td>
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<tr>
<td>Long Acting beta-2 agonists</td>
<td>704 (13)</td>
<td>719 (13)</td>
<td>0.69</td>
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<tr>
<td>Methylxanthine bronchodilators</td>
<td>1102 (20)</td>
<td>1093 (20)</td>
<td>0.85</td>
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<tr>
<td>Mucolytic medications</td>
<td>44 (1)</td>
<td>41 (1)</td>
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<tr>
<td>Chest Physiotherapy</td>
<td>192 (3)</td>
<td>192 (3)</td>
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**Steroids**

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<tr>
<td>Intravenous</td>
<td>4547 (81)</td>
<td>4581 (82)</td>
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<tr>
<td>Oral</td>
<td>334 (6)</td>
<td>330 (6)</td>
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**Severity Indicators**

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<tr>
<td>Chronic pulmonary heart disease</td>
<td>337 (6)</td>
<td>368 (7)</td>
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<tr>
<td>Polycythemia</td>
<td>8 (0)</td>
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<tr>
<td>Sleep apnea</td>
<td>211 (4)</td>
<td>218 (4)</td>
<td>0.77</td>
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<tr>
<td>Noninvasive Positive Pressure Ventilation</td>
<td>128 (2)</td>
<td>114 (2)</td>
<td>0.40</td>
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<tr>
<td>Loop Diuretics</td>
<td>1884 (34)</td>
<td>1862 (33)</td>
<td>0.67</td>
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<tr>
<td>Morphine</td>
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<td>218 (4)</td>
<td>0.69</td>
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<td>Nutritional supplements</td>
<td>26 (1)</td>
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**Hospital Characteristics**

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<th>Staffed Beds</th>
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<tr>
<td>6-200</td>
<td>1610 (29)</td>
<td>1586 (28)</td>
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<tr>
<td>201-300</td>
<td>1174 (21)</td>
<td>1154 (21)</td>
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</tr>
<tr>
<td>301-500</td>
<td>1809 (32)</td>
<td>1867 (33)</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>-------------------------</td>
<td>-------</td>
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</tr>
<tr>
<td><strong>Population served</strong></td>
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<tr>
<td>Urban</td>
<td>4450 (80)</td>
<td>4441 (79)</td>
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<tr>
<td>Rural</td>
<td>1160 (21)</td>
<td>1169 (21)</td>
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<tr>
<td><strong>Hospital Region</strong></td>
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<tr>
<td>South</td>
<td>3212 (57)</td>
<td>3160 (56)</td>
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</tr>
<tr>
<td>MidWest</td>
<td>1170 (21)</td>
<td>1216 (22)</td>
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</tr>
<tr>
<td>Northeast</td>
<td>687 (12)</td>
<td>704 (13)</td>
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</tr>
<tr>
<td>West</td>
<td>541 (10)</td>
<td>530 (9)</td>
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<tr>
<td><strong>Teaching hospital</strong></td>
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<tr>
<td>No</td>
<td>4896 (87)</td>
<td>4878 (87)</td>
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<tr>
<td>Yes</td>
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<td>732 (13)</td>
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<tr>
<td><strong>Hospital Authority</strong></td>
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<td>Non-Profit</td>
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<td>5097 (91)</td>
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<td>Government</td>
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<td>328 (6)</td>
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<td>Profit</td>
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<td>Unknown</td>
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<td>101 (2)</td>
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<tr>
<td><strong>Comorbidities</strong></td>
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<tr>
<td>Congestive Heart Failure</td>
<td>1081 (19)</td>
<td>1060 (19)</td>
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<tr>
<td>Weight loss</td>
<td>68 (1)</td>
<td>67 (1)</td>
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<tr>
<td>Metastatic cancer</td>
<td>34 (1)</td>
<td>38 (1)</td>
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<tr>
<td>Depression</td>
<td>598 (11)</td>
<td>603 (11)</td>
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<tr>
<td>Renal failure</td>
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<td>Deficiency Anemias</td>
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<td>432 (8)</td>
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<td>Condition</td>
<td>Count 1</td>
<td>Count 2</td>
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<tr>
<td>------------------------------------------------</td>
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<tr>
<td>Psychoses</td>
<td>171 (3)</td>
<td>173 (3)</td>
<td>0.96</td>
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<tr>
<td>Solid tumor w/out metastasis</td>
<td>550 (10)</td>
<td>552 (10)</td>
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<tr>
<td>Other neurological disorders</td>
<td>272 (5)</td>
<td>281 (5)</td>
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<tr>
<td>Alcohol abuse</td>
<td>125 (2)</td>
<td>136 (2)</td>
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<td>Drug abuse</td>
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<td>Hypothyroidism</td>
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<td>Peptic ulcer disease x bleeding</td>
<td>119 (2)</td>
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<td>Pulmonary circulation disease</td>
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<td>2 (0)</td>
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<tr>
<td>Valvular disease</td>
<td>1 (0)</td>
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<td>Peripheral vascular disease</td>
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<td>288 (5)</td>
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<td>Rheumatoid arthritis/collagen vas</td>
<td>119 (2)</td>
<td>109 (2)</td>
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<td>Acquired immune deficiency syndrome</td>
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<td>7 (0)</td>
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<tr>
<td>Lymphoma</td>
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<tr>
<td>Paralysis</td>
<td>49 (1)</td>
<td>51 (1)</td>
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<td>Liver disease</td>
<td>27 (1)</td>
<td>22 (0)</td>
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<td>Obesity</td>
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<td>398 (7)</td>
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<tr>
<td>Hypertension</td>
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<td>2468 (44)</td>
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<tr>
<td>Chronic blood loss anemia</td>
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<td>0.55</td>
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<tr>
<td><strong>Diabetes</strong></td>
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<td>0.45</td>
</tr>
<tr>
<td>Without chronic complications</td>
<td>1057 (19)</td>
<td>1066 (19)</td>
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<tr>
<td>With chronic complications</td>
<td>115 (2)</td>
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**Outcomes**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Count 1</th>
<th>Count 2</th>
<th>p-value</th>
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</thead>
<tbody>
<tr>
<td>Treatment Failure-Death, Ventilation, or readmission for COPD</td>
<td>432 (7.7)</td>
<td>380 (6.8)</td>
<td>0.06</td>
</tr>
<tr>
<td>Mortality</td>
<td>74 (1.3)</td>
<td>54 (1.0)</td>
<td>0.09</td>
</tr>
<tr>
<td>Readmitted within 30 days (COPD)</td>
<td>305 (5.4)</td>
<td>290 (5.2)</td>
<td>0.56</td>
</tr>
<tr>
<td>Readmitted within 30 days (All cause)</td>
<td>960 (17.1)</td>
<td>877 (15.6)</td>
<td>0.04</td>
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<td>Event</td>
<td>Group 1</td>
<td>Group 2</td>
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<td>------------------------------------------</td>
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<td>---------</td>
</tr>
<tr>
<td>Admission to ICU &gt; 2 days after admission</td>
<td>82 (1.5)</td>
<td>83 (1.5)</td>
<td>0.94</td>
</tr>
<tr>
<td>Mechanical ventilation begun ≥ day 3</td>
<td>71 (1.3)</td>
<td>45 (0.8)</td>
<td>0.02</td>
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<tr>
<td>Antibiotics for diarrhea</td>
<td>67 (1.2)</td>
<td>31 (0.6)</td>
<td>&lt;0.001</td>
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<tr>
<td>Allergic Reaction</td>
<td>13 (0.2)</td>
<td>14 (0.3)</td>
<td>1.00</td>
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<tr>
<td><strong>Length of Stay</strong></td>
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<tr>
<td>Mean (S.D.)</td>
<td>4.7 (2.6)</td>
<td>4.7 (2.6)</td>
<td>0.39</td>
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<tr>
<td>Median</td>
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<tr>
<td><strong>Hospital Costs ($)</strong></td>
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<tr>
<td>Mean (S.D.)</td>
<td>4,240 (2,400)</td>
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<tr>
<td>Median</td>
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