# Appendix

## Table 1: Descriptive table for patients' characteristics and comorbidities used for matching between surgical and non-surgical group patients, before and after matching

|  | **Original population** | **Matched sample** |
| --- | --- | --- |
| **Variable** | **Level** | **Total (N=939,356)** | **Non-surgical (N=878,260)** | **Surgical (N=61,096)** | **Standardized Difference (Original Sample)** | **Total (N=120,890)** | **Non-surgical (Weighted N=60,445)** | **Surgical (N=60,445)** | **Standardized Difference (Matched Sample)** |
| Age | 878260 vs 61096 | 52.13±16.50 | 52.79±16.59 | 42.69±11.56 | 0.71 | 42.72±7.00 | 42.72±5.48 | 42.72±11.55 | 0 |
| Gender | Female | 607639 (64.69%) | 559696 (63.73%) | 47943 (78.47%) | 0.33 | 94990 (78.58%) | 47495 (78.58%) | 47495 (78.58%) | 0 |
| Male | 331717 (35.31%) | 318564 (36.27%) | 13153 (21.53%) | 25900 (21.42%) | 12950 (21.42%) | 12950 (21.42%) |
| Race/ethnicity | Asian, non-Hispanic | 10251 (1.09%) | 10029 (1.14%) | 222 (0.36%) | 0.25 | 372 (0.31%) | 186 (0.31%) | 186 (0.31%) | 0 |
| Black, non-Hispanic | 176672 (18.81%) | 168650 (19.20%) | 8022 (13.13%) | 15816 (13.08%) | 7908 (13.08%) | 7908 (13.08%) |
| Hispanic | 111419 (11.86%) | 103122 (11.74%) | 8297 (13.58%) | 16328 (13.51%) | 8164 (13.51%) | 8164 (13.51%) |
| Other | 119094 (12.68%) | 110545 (12.59%) | 8549 (13.99%) | 16792 (13.89%) | 8396 (13.89%) | 8396 (13.89%) |
| White, non-Hispanic | 521920 (55.56%) | 485914 (55.33%) | 36006 (58.93%) | 71582 (59.21%) | 35791 (59.21%) | 35791 (59.21%) |
| Year | 2006 | 104242 (11.10%) | 97792 (11.13%) | 6450 (10.56%) | 0.24 | 12834 (10.62%) | 6417 (10.62%) | 6417 (10.62%) | 0 |
| 2007 | 99770 (10.62%) | 92367 (10.52%) | 7403 (12.12%) | 14718 (12.17%) | 7359 (12.17%) | 7359 (12.17%) |
| 2008 | 106740 (11.36%) | 98205 (11.18%) | 8535 (13.97%) | 16826 (13.92%) | 8413 (13.92%) | 8413 (13.92%) |
| 2009 | 118447 (12.61%) | 108915 (12.40%) | 9532 (15.60%) | 18792 (15.54%) | 9396 (15.54%) | 9396 (15.54%) |
| 2010 | 130194 (13.86%) | 120678 (13.74%) | 9516 (15.58%) | 18816 (15.56%) | 9408 (15.56%) | 9408 (15.56%) |
| 2011 | 193307 (20.58%) | 183776 (20.93%) | 9531 (15.60%) | 18876 (15.61%) | 9438 (15.61%) | 9438 (15.61%) |
| 2012 | 186656 (19.87%) | 176527 (20.10%) | 10129 (16.58%) | 20028 (16.57%) | 10014 (16.57%) | 10014 (16.57%) |
| Coronary artery disease | No | 910782 (96.96%) | 850198 (96.80%) | 60584 (99.16%) | 0.17 | 120068 (99.32%) | 60034 (99.32%) | 60034 (99.32%) | 0 |
| Yes | 28574 (3.04%) | 28062 (3.20%) | 512 (0.84%) | 822 (0.68%) | 411 (0.68%) | 411 (0.68%) |
| Hypertension | No | 448850 (47.78%) | 418352 (47.63%) | 30498 (49.92%) | 0.05 | 60630 (50.15%) | 30315 (50.15%) | 30315 (50.15%) | 0 |
| Yes | 490506 (52.22%) | 459908 (52.37%) | 30598 (50.08%) | 60260 (49.85%) | 30130 (49.85%) | 30130 (49.85%) |
| Congestive heart failure | No | 898583 (95.66%) | 837846 (95.40%) | 60737 (99.41%) | 0.25 | 120416 (99.61%) | 60208 (99.61%) | 60208 (99.61%) | 0 |
| Yes | 40773 (4.34%) | 40414 (4.60%) | 359 (0.59%) | 474 (0.39%) | 237 (0.39%) | 237 (0.39%) |
| Valvular disease | No | 917411 (97.66%) | 856767 (97.55%) | 60644 (99.26%) | 0.14 | 120262 (99.48%) | 60131 (99.48%) | 60131 (99.48%) | 0 |
| Yes | 21945 (2.34%) | 21493 (2.45%) | 452 (0.74%) | 628 (0.52%) | 314 (0.52%) | 314 (0.52%) |
| Peripheral vascular disease | No | 915603 (97.47%) | 854771 (97.33%) | 60832 (99.57%) | 0.18 | 120508 (99.68%) | 60254 (99.68%) | 60254 (99.68%) | 0 |
| Yes | 23753 (2.53%) | 23489 (2.67%) | 264 (0.43%) | 382 (0.32%) | 191 (0.32%) | 191 (0.32%) |
| Pulmonary circulation disease | No | 927628 (98.75%) | 866681 (98.68%) | 60947 (99.76%) | 0.12 | 120770 (99.90%) | 60385 (99.90%) | 60385 (99.90%) | 0 |
| Yes | 11728 (1.25%) | 11579 (1.32%) | 149 (0.24%) | 120 (0.10%) | 60 (0.10%) | 60 (0.10%) |
| Diabetes | No | 674908 (71.85%) | 630700 (71.81%) | 44208 (72.36%) | 0.01 | 87866 (72.68%) | 43933 (72.68%) | 43933 (72.68%) | 0 |
| Yes | 264448 (28.15%) | 247560 (28.19%) | 16888 (27.64%) | 33024 (27.32%) | 16512 (27.32%) | 16512 (27.32%) |
| \*: For continuous variable, mean (SD) were reported. |

## Table 2: Descriptive table for patients' comorbidities between surgical and non-surgical group

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Matched Non-surgical group (N=268,362)** | **Surgical group (N=60,445)** | **Standardized difference\*\*** |
| Tobacco use | 35665 (13.29%) | 2121 (3.51%) | 0.36 |
| Coronary artery disease | 1436 (0.54%) | 411 (0.68%) | 0.02 |
| Chronic pulmonary disease | 42324 (15.77%) | 12461 (20.62%) | 0.13 |
| Renal failure | 5458 (2.03%) | 438 (0.72%) | 0.11 |
| Rheumatoid arthritis/collagen vas | 3650 (1.36%) | 653 (1.08%) | 0.03 |
| Coagulopathy | 2802 (1.04%) | 220 (0.36%) | 0.08 |
| Paralysis | 1916 (0.71%) | 40 (0.07%) | 0.1 |
| Other neurological disorders | 5918 (2.21%) | 814 (1.35%) | 0.07 |
| Hypothyroidism | 21361 (7.96%) | 6367 (10.53%) | 0.09 |
| Liver disease | 5014 (1.87%) | 5235 (8.66%) | 0.31 |
| Acquired immune deficiency syndrome | 0 (0%) | 0 (0%) |  |
| Lymphoma | 459 (0.17%) | 45 (0.07%) | 0.03 |
| Metastatic cancer | 1518 (0.57%) | 2 (0.00%) | 0.11 |
| Solid tumor w/out metastasis | 1222 (0.46%) | 34 (0.06%) | 0.08 |
| Weight loss | 968 (0.36%) | 679 (1.12%) | 0.09 |
| Fluid and electrolyte disorders | 17683 (6.59%) | 984 (1.63%) | 0.25 |
| Chronic blood loss anemia | 4231 (1.58%) | 32 (0.05%) | 0.17 |
| Deficiency Anemias | 17613 (6.56%) | 1697 (2.81%) | 0.18 |
| Alcohol abuse | 5738 (2.14%) | 134 (0.22%) | 0.18 |
| Drug abuse | 7642 (2.85%) | 165 (0.27%) | 0.21 |
| Psychoses | 9288 (3.46%) | 985 (1.63%) | 0.12 |
| Depression | 26329 (9.81%) | 11589 (19.17%) | 0.27 |
| Peptic ulcer Disease and bleeding | 66 (0.02%) | 13 (0.02%) | 0 |
| Any other comorbidity | 92391 (34.43%) | 22997 (38.05%) | 0.08 |

## Table 3: Estimated HRs of explanatory variables and their 95% CIs for subsequent MI development using matched surgical and non-surgical records based on multivariable Fine-Gray model

| **Variable** | **Level** | **Hazard Ratio with 95% CI** | **P-value\*** |
| --- | --- | --- | --- |
| Patients' group | Surgical vs Non-surgical | **0.39 (0.35-0.42)** | <.0001 |
| Age (continuous) | Unit=1 year | 1.04 (1.04-1.05) | <.0001 |
| Gender | Male vs Female | 1.78 (1.70-1.87) | <.0001 |
| Race/ethnicity | Asian, non-Hispanic vs White, non-Hispanic | 1.71 (1.07-2.72) | 0.0521 |
| Black, non-Hispanic vs White, non-Hispanic | 0.96 (0.89-1.04) |
| Hispanic vs White, non-Hispanic | 0.93 (0.85-1.02) |
| Other vs White, non-Hispanic | 0.95 (0.89-1.03) |
| Region | West NY vs NYC area | 1.13 (1.06-1.21) | 0.0007 |
| Mid/North NY vs NYC area | 1.09 (1.02-1.16) |
| Close to NYC vs NYC area | 1.16 (1.07-1.27) |
| Long island vs NYC area | 1.13 (1.05-1.22) |
| Insurance | Medicaid vs Commercial | 1.44 (1.35-1.54) | <.0001 |
| Medicare vs Commercial | 1.18 (1.11-1.25) |
| Other or unknown vs Commercial | 0.96 (0.87-1.07) |
| Tobacco use | Yes vs No | 2.18 (2.07-2.30) | <.0001 |
| Coronary artery disease | Yes vs No | 2.16 (1.90-2.47) | <.0001 |
| Congestive heart failure | Yes vs No | 1.27 (1.01-1.59) | 0.0425 |
| Valvular disease | Yes vs No | 0.96 (0.68-1.35) | 0.8133 |
| Peripheral vascular disease | Yes vs No | 1.43 (1.15-1.78) | 0.0014 |
| Hypertension | Yes vs No | 1.55 (1.46-1.64) | <.0001 |
| Chronic pulmonary disease | Yes vs No | 1.09 (1.03-1.15) | 0.0028 |
| Renal failure | Yes vs No | 2.49 (2.30-2.71) | <.0001 |
| Rheumatoid arthritis/collagen vas | Yes vs No | 1.29 (1.10-1.50) | 0.0013 |
| Coagulopthy | Yes vs No | 1.11 (0.92-1.34) | 0.2890 |
| Pulmonary circulation disease | Yes vs No | 0.34 (0.08-1.39) | 0.1321 |
| Diabetes | Yes vs No | 1.97 (1.87-2.07) | <.0001 |
| Any other comorbidities | Yes vs No | 1.07 (1.02-1.12) | 0.0057 |
| \*: P-values were from Type 3 Tests based on multivariable Fine-Gray model. |

## Table 4: Estimated HRs of explanatory variables and their 95% CIs for subsequent stroke development using matched surgical and non-surgical records based on multivariable Fine-Gray model

| **Variable** | **Level** | **Hazard Ratio with 95% CI** | **P-value\*** |
| --- | --- | --- | --- |
| Patients' group | Surgical vs Non-surgical | **0.55 (0.51-0.59)** | <.0001 |
| Age (continuous) | Unit=1 year | 1.05 (1.05-1.05) | <.0001 |
| Gender | Male vs Female | 1.15 (1.10-1.21) | <.0001 |
| Race/ethnicity | Asian, non-Hispanic vs White, non-Hispanic | 1.23 (0.76-2.01) | <.0001 |
| Black, non-Hispanic vs White, non-Hispanic | 1.36 (1.28-1.45) |
| Hispanic vs White, non-Hispanic | 1.04 (0.96-1.13) |
| Other vs White, non-Hispanic | 0.98 (0.92-1.05) |
| Region | West NY vs NYC area | 1.01 (0.94-1.07) | <.0001 |
| Mid/North NY vs NYC area | 1.12 (1.06-1.19) |
| Close to NYC vs NYC area | 1.07 (0.99-1.16) |
| Long island vs NYC area | 0.99 (0.92-1.06) |
| Insurance | Medicaid vs Commercial | 1.35 (1.26-1.44) | <.0001 |
| Medicare vs Commercial | 1.26 (1.19-1.34) |
| Other or unknown vs Commercial | 0.87 (0.79-0.95) |
| Tobacco use | Yes vs No | 1.54 (1.45-1.63) | <.0001 |
| Coronary artery disease | Yes vs No | 1.51 (1.30-1.75) | <.0001 |
| Congestive heart failure | Yes vs No | 1.12 (0.88-1.43) | 0.3577 |
| Valvular disease | Yes vs No | 1.32 (1.01-1.72) | 0.0397 |
| Peripheral vascular disease | Yes vs No | 2.05 (1.70-2.46) | <.0001 |
| Hypertension | Yes vs No | 1.52 (1.44-1.60) | <.0001 |
| Chronic pulmonary disease | Yes vs No | 1.06 (1.00-1.11) | 0.0352 |
| Renal failure | Yes vs No | 1.68 (1.54-1.84) | <.0001 |
| Rheumatoid arthritis/collagen vas | Yes vs No | 1.13 (0.98-1.30) | 0.1059 |
| Coagulopthy | Yes vs No | 1.06 (0.88-1.28) | 0.5350 |
| Pulmonary circulation disease | Yes vs No | 0.92 (0.40-2.08) | 0.8326 |
| Diabetes | Yes vs No | 1.72 (1.64-1.80) | <.0001 |
| Any other comorbidities | Yes vs No | 1.19 (1.14-1.25) | <.0001 |
| \*: P-values were from Type 3 Tests based on multivariable Fine-Gray model. |

## Table 5: Estimated HRs of explanatory variables and their 95% CIs for subsequent any CVs development using surgery and matched non-surgical records based on multivariable Fine-Gray model

| **Variable** | **Level** | **Hazard Ratio with 95% CI** | **P-value\*** |
| --- | --- | --- | --- |
| Patients' group | Surgical vs Non-surgical | **0.48 (0.45-0.51)** | <.0001 |
| Age (continuous) | Unit=1 year | 1.05 (1.05-1.05) | <.0001 |
| Gender | Male vs Female | 1.44 (1.39-1.49) | <.0001 |
| Race/ethnicity | Asian, non-Hispanic vs White, non-Hispanic | 1.43 (1.00-2.03) | <.0001 |
| Black, non-Hispanic vs White, non-Hispanic | 1.17 (1.11-1.23) |
| Hispanic vs White, non-Hispanic | 0.98 (0.92-1.04) |
| Other vs White, non-Hispanic | 0.97 (0.92-1.02) |
| Region | West NY vs NYC area | 1.05 (1.00-1.10) | <.0001 |
| Mid/North NY vs NYC area | 1.11 (1.06-1.16) |
| Close to NYC vs NYC area | 1.11 (1.04-1.18) |
| Long island vs NYC area | 1.06 (1.00-1.12) |
| Insurance | Medicaid vs Commercial | 1.38 (1.31-1.45) | <.0001 |
| Medicare vs Commercial | 1.22 (1.17-1.28) |
| Other or unknown vs Commercial | 0.92 (0.85-0.99) |
| Tobacco use | Yes vs No | 1.84 (1.77-1.92) | <.0001 |
| Coronary artery disease | Yes vs No | 1.82 (1.64-2.03) | <.0001 |
| Congestive heart failure | Yes vs No | 1.21 (1.01-1.45) | 0.0349 |
| Valvular disease | Yes vs No | 1.16 (0.93-1.44) | 0.1923 |
| Peripheral vascular disease | Yes vs No | 1.76 (1.51-2.05) | <.0001 |
| Hypertension | Yes vs No | 1.53 (1.47-1.59) | <.0001 |
| Chronic pulmonary disease | Yes vs No | 1.08 (1.03-1.12) | 0.0002 |
| Renal failure | Yes vs No | 2.08 (1.95-2.22) | <.0001 |
| Rheumatoid arthritis/collagen vas | Yes vs No | 1.18 (1.06-1.32) | 0.0033 |
| Coagulopthy | Yes vs No | 1.07 (0.93-1.23) | 0.3415 |
| Pulmonary circulation disease | Yes vs No | 0.68 (0.33-1.39) | 0.2864 |
| Diabetes | Yes vs No | 1.79 (1.73-1.86) | <.0001 |
| Any comorbidities | Yes vs No | 1.13 (1.10-1.17) | <.0001 |
| \*: P-values were from Type 3 Tests based on multivariable Fine-Gray model. |

## Table 6: Estimated HRs of explanatory variables and their 95% CIs for subsequent MI development after primary bariatric surgery based on multivariable Fine-Gray model

| **Variable** | **Level** | **Hazard Ratio with 95% CI** | **P-value\*** |
| --- | --- | --- | --- |
| Surgery type | AGB vs RYGB | **1.23 (1.00-1.52)** | 0.0554 |
| LSG vs RYGB | 1.35 (0.99-1.84) |
| LOS | Unit=1 day | 1.01 (1.01-1.02) | 0.0006 |
| Age (continuous) | Unit=1 year | 1.05 (1.04-1.06) | <.0001 |
| Gender | Male vs Female | 1.77 (1.47-2.14) | <.0001 |
| Race/ethnicity | Asian, non-Hispanic vs White, non-Hispanic | 0.79 (0.11-5.63) | 0.6354 |
| Black, non-Hispanic vs White, non-Hispanic | 0.93 (0.70-1.24) |
| Hispanic vs White, non-Hispanic | 0.82 (0.58-1.15) |
| Other vs White, non-Hispanic | 0.84 (0.63-1.12) |
| Insurance | Medicaid vs Commercial | 1.53 (0.99-2.36) | 0.0003 |
| Medicare vs Commercial | 1.42 (1.11-1.81) |
| Other or unknown vs Commercial | 2.12 (1.34-3.35) |
| Region | West NY vs NYC area | 0.95 (0.72-1.25) | 0.4215 |
| Mid/North NY vs NYC area | 0.80 (0.61-1.07) |
| Close to NYC vs NYC area | 0.98 (0.73-1.31) |
| Long island vs NYC area | 1.08 (0.84-1.38) |
| Tobacco use | Yes vs No | 1.39 (0.89-2.15) | 0.1442 |
| Coronary artery disease | Yes vs No | 4.58 (3.28-6.41) | <.0001 |
| Congestive heart failure | Yes vs No | 1.35 (0.71-2.59) | 0.3603 |
| Valvular disease | Yes vs No | 0.92 (0.34-2.45) | 0.8605 |
| Peripheral vascular disease | Yes vs No | 1.73 (0.90-3.34) | 0.0995 |
| Hypertension | Yes vs No | 1.64 (1.30-2.06) | <.0001 |
| Chronic pulmonary disease | Yes vs No | 1.06 (0.87-1.30) | 0.5665 |
| Renal failure | Yes vs No | 2.23 (1.43-3.48) | 0.0004 |
| Rheumatoid arthritis/collagen vas | Yes vs No | 0.80 (0.35-1.82) | 0.5999 |
| Coagulopthy | Yes vs No | 0.62 (0.14-2.68) | 0.5212 |
| Pulmonary circulation disease | Yes vs No | 1.10 (0.15-8.16) | 0.9279 |
| Diabetes | Yes vs No | 1.64 (1.36-1.98) | <.0001 |
| Alcohol abuse | Yes vs No | 3.95 (1.61-9.69) | 0.0027 |
| Hypothyroidism | Yes vs No | 1.26 (0.99-1.61) | 0.0643 |
| Lymphoma | Yes vs No | 1.64 (0.38-7.08) | 0.5100 |
| Fluid and electrolyte disorders | Yes vs No | 1.20 (0.71-2.03) | 0.5024 |
| Any complications | Yes vs No | 1.26 (0.90-1.78) | 0.1761 |
| \*: P-values were from Type 3 Test based on a multivariable Fine-Gray model. |

## Table 7: Estimated HRs of explanatory variables and their 95% CIs for subsequent stroke development after primary bariatric surgery based on multivariable Fine-Gray model

| **Variable** | **Level** | **Hazard Ratio with 95% CI** | **P-value\*** |
| --- | --- | --- | --- |
| Surgery type | AGB vs RYGB | 0.97 (0.82-1.15) | 0.1080 |
| LSG vs RYGB | 1.26 (0.99-1.60) |
| Inpatient or Outpatient | Outpatient vs Inpatient | 1.07 (0.78-1.48) | 0.6736 |
| LOS | Unit=1 day | 1.01 (1.01-1.02) | <.0001 |
| Age (continuous) | Unit=1 year | 1.06 (1.05-1.07) | <.0001 |
| Gender | Male vs Female | 1.22 (1.05-1.42) | 0.0093 |
| Race/ethnicity | Asian, non-Hispanic vs White, non-Hispanic | 1.02 (0.26-3.98) | 0.0561 |
| Black, non-Hispanic vs White, non-Hispanic | 1.27 (1.03-1.56) |
| Hispanic vs White, non-Hispanic | 1.06 (0.83-1.35) |
| Other vs White, non-Hispanic | 0.83 (0.66-1.04) |
| Insurance | Medicaid vs Commercial | 1.16 (0.80-1.66) | <.0001 |
| Medicare vs Commercial | 1.58 (1.32-1.88) |
| Other or unknown vs Commercial | 0.71 (0.40-1.24) |
| Region | West NY vs NYC area | 0.97 (0.78-1.20) | 0.2130 |
| Mid/North NY vs NYC area | 1.22 (0.99-1.50) |
| Close to NYC vs NYC area | 1.08 (0.86-1.35) |
| Long island vs NYC area | 1.03 (0.84-1.27) |
| Tobacco use | Yes vs No | 1.64 (1.19-2.25) | 0.0022 |
| Coronary artery disease | Yes vs No | 2.23 (1.60-3.11) | <.0001 |
| Congestive heart failure | Yes vs No | 1.08 (0.60-1.94) | 0.7923 |
| Valvular disease | Yes vs No | 1.09 (0.55-2.19) | 0.7992 |
| Peripheral vascular disease | Yes vs No | 2.40 (1.56-3.70) | <.0001 |
| Hypertension | Yes vs No | 1.35 (1.14-1.59) | 0.0004 |
| Chronic pulmonary disease | Yes vs No | 1.04 (0.89-1.21) | 0.6455 |
| Renal failure | Yes vs No | 2.05 (1.44-2.91) | <.0001 |
| Rheumatoid arthritis/collagen vas | Yes vs No | 1.13 (0.69-1.84) | 0.6390 |
| Coagulopthy | Yes vs No | 1.64 (0.78-3.46) | 0.1894 |
| Pulmonary circulation disease | Yes vs No | 2.76 (1.03-7.41) | 0.0434 |
| Diabetes | Yes vs No | 1.64 (1.42-1.89) | <.0001 |
| Deficiency Anemias | Yes vs No | 1.37 (0.98-1.92) | 0.0686 |
| Hypothyroidism | Yes vs No | 1.04 (0.86-1.27) | 0.6595 |
| Fluid and electrolyte disorders | Yes vs No | 1.16 (0.76-1.75) | 0.4938 |
| Other neurological disorders | Yes vs No | 2.16 (1.48-3.14) | <.0001 |
| Paralysis | Yes vs No | 4.74 (1.59-14.08) | 0.0051 |
| Any complications | Yes vs No | 1.05 (0.80-1.37) | 0.7263 |
| \*: P-values were from Type 3 Test based on a multivariable Fine-Gray model. |

## Table 8: Estimated HRs of explanatory variables and their 95% CIs for subsequent any types of CV development after primary bariatric surgery based on multivariable Fine-Gray model

| **Variable** | **Level** | **Hazard Ratio with 95% CI** | **P-value\*** |
| --- | --- | --- | --- |
| Surgery type | AGB vs RYGB | 1.07 (0.93-1.22) | 0.0295 |
| LSG vs RYGB | **1.30 (1.07-1.57)** |
| Inpatient or Outpatient | Outpatient vs Inpatient | 1.00 (0.77-1.29) | 0.9737 |
| LOS | Unit=1 day | 1.01 (1.01-1.02) | <.0001 |
| Age (continuous) | Unit=1 year | 1.06 (1.05-1.06) | <.0001 |
| Gender | Male vs Female | 1.43 (1.27-1.61) | <.0001 |
| Race/ethnicity | Asian, non-Hispanic vs White, non-Hispanic | 0.96 (0.31-2.90) | 0.1262 |
| Black, non-Hispanic vs White, non-Hispanic | 1.13 (0.95-1.34) |
| Hispanic vs White, non-Hispanic | 0.91 (0.74-1.12) |
| Other vs White, non-Hispanic | 0.84 (0.70-1.01) |
| Insurance | Medicaid vs Commercial | 1.24 (0.93-1.66) | <.0001 |
| Medicare vs Commercial | 1.50 (1.29-1.74) |
| Other or unknown vs Commercial | 1.26 (0.87-1.82) |
| Region | West NY vs NYC area | 0.92 (0.77-1.10) | 0.5202 |
| Mid/North NY vs NYC area | 1.06 (0.89-1.26) |
| Close to NYC vs NYC area | 1.01 (0.84-1.22) |
| Long island vs NYC area | 1.06 (0.90-1.25) |
| Tobacco use | Yes vs No | 1.57 (1.21-2.04) | 0.0008 |
| Coronary artery disease | Yes vs No | 3.06 (2.38-3.92) | <.0001 |
| Congestive heart failure | Yes vs No | 1.20 (0.77-1.88) | 0.4150 |
| Valvular disease | Yes vs No | 0.99 (0.54-1.79) | 0.9625 |
| Peripheral vascular disease | Yes vs No | 2.15 (1.48-3.13) | <.0001 |
| Hypertension | Yes vs No | 1.49 (1.30-1.71) | <.0001 |
| Chronic pulmonary disease | Yes vs No | 1.07 (0.94-1.21) | 0.3172 |
| Renal failure | Yes vs No | 2.14 (1.61-2.84) | <.0001 |
| Rheumatoid arthritis/collagen vas | Yes vs No | 1.03 (0.67-1.58) | 0.9078 |
| Coagulopthy | Yes vs No | 1.20 (0.60-2.42) | 0.6088 |
| Pulmonary circulation disease | Yes vs No | 2.31 (0.95-5.63) | 0.0646 |
| Diabetes | Yes vs No | 1.61 (1.43-1.80) | <.0001 |
| Deficiency Anemias | Yes vs No | 1.33 (1.01-1.77) | 0.0450 |
| Hypothyroidism | Yes vs No | 1.13 (0.97-1.33) | 0.1152 |
| Fluid and electrolyte disorders | Yes vs No | 1.16 (0.83-1.62) | 0.3919 |
| Other neurological disorders | Yes vs No | 1.93 (1.39-2.69) | <.0001 |
| Paralysis | Yes vs No | 3.05 (1.02-9.09) | 0.0459 |
| Any complications | Yes vs No | 1.11 (0.89-1.38) | 0.3431 |
| \*: P-values were from Type 3 Test based on a multivariable Fine-Gray model. |