**Supplementary Table 1:  International Classification of Disease 9th Revision –Clinical Modification Codes (ICD-9 CM) and Clinical Classifications Software (CCS) and procedure (PR) codes used for Comorbidities and Complications not provided by NIS database.**

**(**The comorbidity codes provided by database**:**

**https://www.hcup-us.ahrq.gov/toolssoftware/comorbidity/Table2-FY2010-V3\_5.pdf)**

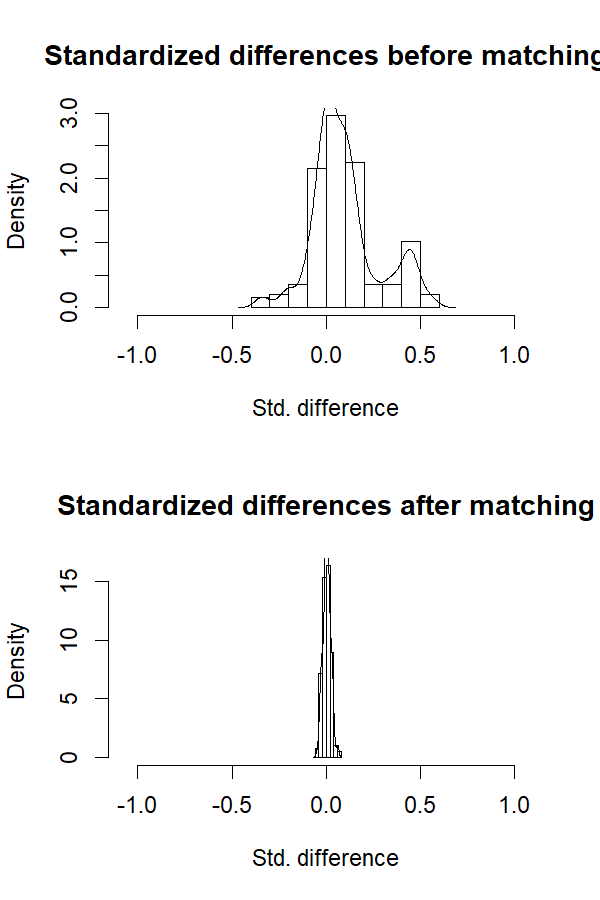
|  |  |
| --- | --- |
| **Comorbidities** | **ICD9 CM/CCS/PR Codes:** |
| Congestive Heart Failure | 398.91, 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0-428.9 |
| Valvular disease | 093.20-093.24, 394.0-397.1, 397.9, 424.0-424.99, 746.3-746.6, V42.2, V43.4 |
| Pulmonary Circulation disorders | 415.11-415.19, 416.0-416.9, 417.9 |
| Peripheral vascular disease | 440-440.9, 441.00-441.9, 442.0-442.9, 443.1-443.9, 444.21-444.22, 447.1,449, 557.1, 557.9, V43.5 |
| Hypertension (combine uncomplicated and complicated) | Hypertension, uncomplicated: 401.1, 401.9, 642.00-642.04 |
| Hypertension, complicated: 401.0, 402.00-405.99, 437.2, 642.10-642.24, 642.70-642.94 |
| Other neurological disorders | 330.1-331.9, 332.0, 333.5, 333.5, 333.71-333.79, 333.85, 333.94, 334.0- 335.9, 338.0, 340, 341.1-341.9, 345.00- 345.11, 345.2-345.3, 345.40-345.91, 347.00-347.01, 347.10-347.11, 649.40- 649.44, 768.7, 768.70, 768.71, 768.72, 768.73, 780.3, 780.31, 780.32, 780.39, 780.97, 784.3 |
| Chronic pulmonary disease | 490-492.8, 493.00-493.92, 494-494.1, 495.0-505, 506.4, |
| Diabetes without chronic complications | 249.00-249.31 250.00-250.33, 648.00- 648.04 |
| Diabetes with chronic complications | 249.40-249.91 250.40-250.93, 775.1 |
| Hypothyroidism | 243-244.2, 244.8, 244.9 |
| Renal failure | 403.01, 403.11, 403.91, 404.02, 404.03, 404.12, 404.13, 404.92, 404.93, 585.3, 585.4, 585.5, 585.6, 585.9, 586, V42.0, V45.1, V45.11, V45.12, V56.0-V56.32, V56.8 |
| Liver disease | 070.22, 070.23, 070.33, 070.44, 070.54, 456.0, 456.1, 456.20, 456.21, 571.0, 571.2, 571.3, 571.40-571.49, 571.5, 571.6, 571.8, 571.9, 572.3, 572.8, V42.7 |
| Chronic Peptic ulcer disease (includes bleeding only if obstruction is also present) | 531.41, 531.51, 531.61, 531.70, 531.71, 531.91, 532.41, 532.51, 532.61, 532.70, 532.71, 532.91, 533.51, 533.51, 533.61, 533.70, 533.71, 533.91, 534.41, 534.51, 534.61, 534.70, 534.71, 534.91 |
| Rheumatoid arthritis/collagen vascular diseases | 701.0, 710.0-710.9, 714.0-714.9, 720.0- 720.9, 725 |
| Coagulation deficiency | 286.0-286.9, 287.1, 287.3-287.5, 289.84, 649.30-649.34 |
| Obesity | 278.0, 278.00, 278.01, 649.10-649.14, 793.91, V85.30-V85.4, V85.54 |
| Fluid and electrolyte disorders | 276.0-276.9 |
| Blood loss anemia | 280.0, 648.20-648.24 |
| Deficiency anemias | 280.1-280.9, 285.21-285.29, 285.9 |
| Alcohol abuse | 291.0-291.3, 291.5, 291.8, 291.81, 281.82, 291.89, 291.9, 303.00-303.93, 305.00-305.03 |
| Drug abuse | 292.0, 292.82-292.89, 292.9, 304.00- 304.93, 305.20-305.93, 648.30-648.34 |
| Smoking | ICD 9 305.1 V15.82 |
| Dyslipidemia | CCS 53 |
| Coronary atherosclerosis | CCS 101 |
| Previous myocardial infarction | ICD-9 412 |
| Previous percutaneous coronary intervention (PCI) | ICD-9 V45.82 |
| Previous coronary artery bypass grafting (CABG) | ICD-9 V45.81 |
|  |  |
| **Procedures** |  |
| Thrombolysis | ICD-9 V45.88, 99.10 |
| Percutaneous coronary intervention | ICD-9 00.66 36.01 36.02 30.05 36.06 36.07 17.55 |
| Coronary artery bypass grafting | CCS 44 |
|  |  |
| **Complications** |  |
| Cardiogenic shock | ICD-9 785.51 |
| Cardiac Arrest | ICD-9 427.5 |
| Insertion of percutaneous external heart assist device | ICD-9 PR 37.68 |
| Implant of pulsation balloon | ICD-9 PR 37.61 |
| Phlebitis; thrombophlebitis and thromboembolism | CCS 118 |
| Respiratory failure; insufficiency; arrest (adult) | CCS 131 |
| Hemorrhage or Hematoma complicating a procedure | ICD-9 998.1 998.11 998.12 998.13 |
| Perioperative autologous transfusions of whole blood or blood components | ICD-9 V58.2,99.00 |
| Periprocedural hypotension or shock | ICD-9 458.2, 998.0x |
| Myocardial infarction | CCS100, ICD-9 410. x |
| Postoperative stroke | ICD-9 997.02 |
| Respiratory complications | ICD-9 97.3 997.31 997.32 997.39 |
| Gastrointestinal complications including GIH | ICD-9 997.4 , CCS 153 |
| AKI + Dialysis | ICD-9 584.9 , ICD-9 PR 39.95 |
| Postoperative Urinary complications | ICD-9 997.5 |
| Postoperative infection | ICD-9 998.5, 998.51, 998.59, 999.3, 038.0, 995.91, 995.92 |

**Supplemental Table/Figure 2:**

Covariates adjusted in propensity-score matching for revascularization with vs. without gout = Age, sex, race, alcohol abuse, hypertension, diabetes, dyslipidemia, diabetes, drug abuse, acute and chronic renal failure, dialysis status, smoking

Ratio = 1:1

Caliper = 0.01



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Supplemental Table 3: Outcomes of revascularization with vs. Without gout: propensity-score matched analysis** | | | | | |
|  | **No Gout (n=40,310)** | | **Gout (n=40,358)** | | ***P*** |
|  | N | % | N | % |  |
| **Age (years) at admission Mean±SD** | 67.1 ±12 | | 67.4 ±12 | | <0.001 |
| **Sex** |  |  |  |  | <0.001 |
| Male | 33,318 | 82.7% | 32,837 | 81.4% |  |
| Female | 6,993 | 17.3% | 7,522 | 18.6% |  |
| **Race** |  |  |  |  | 0.121 |
| White | 30,316 | 75.2% | 30,463 | 75.5% |  |
| African American | 5,036 | 12.5% | 4,864 | 12.1% |  |
| Hispanic | 1,917 | 4.8% | 1,955 | 4.8% |  |
| Asian or Pacific Islander | 1,678 | 4.2% | 1,658 | 4.1% |  |
| Native American | 190 | 0.5% | 163 | 0.4% |  |
| Others | 1,173 | 2.9% | 1,256 | 3.1% |  |
| **Comorbidities** |  |  |  |  |  |
| Alcohol abuse | 1,714 | 4.3% | 1,739 | 4.3% | 0.69 |
| Congestive heart failure | 215 | 0.5% | 100 | 0.2% | <0.001 |
| Diabetes, uncomplicated | 14,291 | 35.5% | 14,120 | 35.0% | 0.166 |
| Diabetes with chronic complications | 3,826 | 9.5% | 3,764 | 9.3% | 0.422 |
| Drug abuse | 635 | 1.6% | 700 | 1.7% | 0.076 |
| Hypertension | 34,046 | 84.5% | 33,710 | 83.5% | <0.001 |
| Obesity | 6,626 | 16.4% | 10,413 | 25.8% | <0.001 |
| Peripheral vascular disorders | 5,495 | 13.6% | 5,354 | 13.3% | 0.128 |
| Pulmonary circulation disorders | 40 | 0.1% | 25 | 0.1% | 0.062 |
| Renal failure | 13,312 | 33.0% | 13,891 | 34.4% | <0.001 |
| Dyslipidemia | 30,767 | 76.3% | 30,693 | 76.1% | 0.361 |
| Previous History of MI | 4,933 | 12.2% | 5,297 | 13.1% | <0.001 |
| Previous PCI | 7,038 | 17.5% | 7,173 | 17.8% | 0.242 |
| Previous CABG | 2,616 | 6.5% | 2,458 | 6.1% | 0.02 |
| Smoking | 14,535 | 36.1% | 14,962 | 37.1% | 0.003 |
| Chronic kidney disease | 13,521 | 33.5% | 14,151 | 35.1% | <0.001 |
| Dialysis status | 1,390 | 3.4% | 1,348 | 3.3% | 0.396 |
| **Outcomes** |  |  |  |  |  |
| All-cause in-hospital mortality | 1,428 | 3.5% | 862 | 2.1% | **<0.001** |
| Disposition of patient |  |  |  |  | **<0.001** |
| Routine | 29,161 | 72.3% | 28,768 | 71.3% |  |
| Transfer to short term hospital | 628 | 1.6% | 549 | 1.4% |  |
| Transfer to other hospitals (SNF, ICF) | 4,295 | 10.7% | 4,839 | 12.0% |  |
| Home health care | 4,630 | 11.5% | 5,260 | 13.0% |  |
| Postoperative Hemorrhage | 1,094 | 2.7% | 1,217 | 3.0% | **0.01** |
| Perioperative blood Transfusion | 439 | 1.1% | 481 | 1.2% | 0.169 |
| Postoperative hypotension/shock | 231 | 0.6% | 243 | 0.6% | 0.59 |
| Postoperative cardiac complications | 1,209 | 3.0% | 1,328 | 3.3% | **0.018** |
| Postoperative MI | 606 | 1.5% | 689 | 1.7% | **0.021** |
| Postoperative Stroke | 171 | 0.4% | 129 | 0.3% | **0.015** |
| Postoperative respiratory complications | 1,392 | 3.5% | 1,476 | 3.7% | 0.118 |
| Postoperative GI complications | 812 | 2.0% | 842 | 2.1% | 0.471 |
| Postoperative AKI requiring dialysis | 434 | 1.1% | 538 | 1.3% | **0.001** |
| Postop urinary complications | 150 | 0.4% | 278 | 0.7% | **<0.001** |
| Postop infections | 843 | 2.1% | 585 | 1.5% | **<0.001** |
| Length of stay Mean | 5.6 days | | 5.9 days | | **<0.001** |
| Total charges Mean | $109,904 | | $111,215 | | 0.066 |

P<0.05 indicates statistical significance. MI=myocardial infarction, PCI=percutaneous coronary intervention, CABG=coronary artery bypass grafting, GI-gastrointestinal, AKI=acute kidney injury, SNF=skilled nursing facility, ICF=intermediate care facility.