**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)**

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| --- | --- |
| **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 |
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| **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 |
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| **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

 

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| **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.