**Supplemental Material**

**Supplemental Table 1:** International Classification of Diseases Codes Used to Define Baseline Variables and In-Hospital Complications.

**Supplemental Table 2:** Risk Factors for Acute Kidney Injury in Patients Undergoing Elective TMVr.

**Supplemental Table 3:** Risk Factors for Acute Kidney Injury in Patients Undergoing Non-Elective TMVr.

**Supplemental Table 1:** International Classification of Diseases Codes Used to Define Baseline Variables and In-Hospital Complications.

|  |  |  |
| --- | --- | --- |
| **Diagnosis**  | **ICD-9-CM Codes1** | **ICD-10 codes2** |
| Heart failure | 402.01, 402.11, 402.91, 404.01, 404.11, 404.91, 404.03, 404.13, 402.93, 428.0, 428.1, 428.2x, 428.3x, 428.4x, 428.9 | I11.0, I50.1, I50.2x, I50.3x, I50.4x, I50.81x, I50.82, I50.83, I50.84, I50.89, I50.9  |
| Dyslipidemia | 272.0, 272.1, 272.2, 272.3, 272.4 | E78.0, E78.00, E78.01, E78.1, E78.2, E78.3, E78.4, E78.5, E78.81, E78.89, E78.9 |
| Atrial fibrillation | 427.31 | I48.0, I48.1x, I48.2x, I48.91 |
| History of PCI | V45.82 | Z95.5, Z98.61 |
| History of CABG | 414.02,414.03,414.04,414.05,V45.81 | Z95.1, I25.7xx, I25.810, I25.812 |
| History of CVA | 438.x , V12.54 | Z867.3, I699.10, I699.11, I699.13, I699.15, I699.14 , I699.18, I699.19  |
| Old MI | 412 | I25.2, I22.0, I22.1, I22.2, I22.8, I22.9 |
| Smoking | V15.82, 305.1 | Z72.0, Z87.891, F17.200 to F17.229, F17.290, F17.293, F17.298, F17.299 |
| Acute kidney injury | 584.x | N17.x  |
| Stroke | 433.01, 433.11, 433.21, 433.31, 733.81, 433.91, 434.01, 434.11, 434.91, 997.02, 431, 430, 432 | I60.xx, I61.x, I62.xx, I63.xxx,  |
| Bleeding | 998.11, 998.12, 285.1 | D7801, J95830, H59322, G9732, L7602, H9541, D7821, K9161, H59329, G9752, L7622, I97410, E3601, K91840, H9522, H59112, M96811, I97418, G9731, L7601, H9542, H59119, M96831, I97610, G9751, L7621, I97411, H59122, N9962, I97618, H59111, M96810, I9742, H59129, N99821, J9561, H59113, M96830, I97611, H59312, D7801, J95830, H59121, N9961, I9762, H59319, D7821, K9161, H59123, N99820, J9562, H59322, E3601, K91840, H59311, D7802, J95831, H59329, G9731, L7601, H59313, D7822, K9162, H9522, G9751, L7621, H59321, E3602, K91841, H9542, H59111, M96810, H59323, G9732, L7602, I97411, H59113, M96830, H9521, G9752, L7622, I9742, H59121, N9961, H9541, H59112, M96811, I97611, H59123, N99820, I97410, H59119, M96831, I9762, H59311, D62, I97418, H59122, N9962, J9562, H59313, , I97610, H59129, D7802, J95831, H59321, I97618, H59312, D7822, K9162, H59323, J9561, H59319, E3602, K91841, H9521 |
| **Procedure**  |  |  |
| Transcatheter Mitral Valve Repair (TMVr) | 35.97 | 02UG3JZ |
| Blood transfusion | 99.00, 99.01, 99.02, 99.03, 99.04,  | 30233H0, 30233N0, 30243H0, 30243N0, 30233H1, 30243H1, 30233N1, 30233P1, 30243N1, 30243P1, 30233R1, 30243R1, 30233T1, 30233V1, 30233W1, 30243T1, 30243V1, 30243W1, 30233J1, 30233K1, 30233L1, 30233M1, 30243J1, 30243K1, 30243L1, 30243M1, 3E033GC, 3E043GC, 3E053GC, E063GC, 30233Q1, 30243Q1, 30233W0, 30243W0 |
|  |  |  |
| Hemodialysis | 39.95 | [5A1D70Z](https://www.icd10data.com/ICD10PCS/Codes/5/A/1/D/5A1D70Z), [5A1D80Z](https://www.icd10data.com/ICD10PCS/Codes/5/A/1/D/5A1D80Z), [5A1D90Z](https://www.icd10data.com/ICD10PCS/Codes/5/A/1/D/5A1D90Z), 5A1D60Z, 5A1D00Z |

1ICD-9 codes were used between 1 January 2012 and 30 September 2015.

2ICD-10 codes were used between 1 October 2015 and 31 December 2016.

PCI - percutaneous coronary intervention, CABG - coronary artery bypass grafting, CVA - cerebrovascular accident, MI - myocardial infarction

**Supplemental Table 2:** Risk Factors for Acute Kidney Injury in Patients Undergoing Elective TMVr.

|  |  |  |
| --- | --- | --- |
| **Variable** | **Odds Ratio (95% CI)** | ***P*-Value** |
| Cardiogenic shock | 6.49 (3.73-11.31) | *P*<0.001 |
| Electrolyte abnormalities | 4.60 (3.46-6.10) | *P*<0.001 |
| Chronic kidney disease | 3.79 (2.94-4.89) | *P*<0.001 |
| Mitral valve surgery | 2.86 (1.31-6.25) | *P*=0.008 |
| Weight loss | 2.04 (1.23-3.38) | *P*=0.006 |
| Bleeding/Transfusion | 2.00 (1.47-2.73) | *P*<0.001 |
| Heart failure | 1.79 (1.23-2.58) | *P*=0.002 |

The multivariable logistic regression model included age, sex, all baseline comorbidities listed in Table 1, and in-hospital complications (cardiogenic shock, cardiac arrest, cardiac tamponade, infective endocarditis, stroke, bleeding/transfusion, and conversion to mitral valve surgery) as covariates.

**Supplemental Table 3:** Risk Factors for Acute Kidney Injury in Patients Undergoing Non-Elective TMVr.

|  |  |  |
| --- | --- | --- |
| **Variable** | **Odds Ratio (95% CI)** | ***P*-Value** |
| Chronic kidney disease | 5.48 (4.11-7.30) | *P*<0.001 |
| Infective endocarditis | 4.91 (1.17-20.6) | *P*=0.03 |
| Cardiogenic shock | 3.96 (2.58-6.06) | *P*<0.001 |
| Electrolyte abnormalities | 3.02 (2.25-4.11) | *P*<0.001 |
| Heart failure | 2.73 (1.43-5.21) | *P*=0.002 |
| Weight loss | 1.66 (1.09-2.52) | *P*=0.01 |
| Bleeding/Transfusion | 1.64 (1.20-2.25) | *P*<0.001 |

The multivariable logistic regression model included age, sex, all baseline comorbidities listed in Table 1, and in-hospital complications (cardiogenic shock, cardiac arrest, cardiac tamponade, infective endocarditis, stroke, bleeding/transfusion, and conversion to mitral valve surgery) as covariates.