**Supplementary table 1:** Baseline demographics of patients with and without CABG history

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **No CABG history (n=527,121)** | **CABG history****(n=58,870)** | **p-value** |
| Age (years) ±SD | 64.8±11.8 | 69.1±9.5 | <0.001 |
| Male, no. (%) | 390,036 (74) | 49, 231 (83) | <0.001 |
| Hypertension, no. (%) | 267,540 (52) | 37,682 (68) | <0.001 |
| Diabetes, no. (%) | 97,251 (19) | 18,114 (32) | <0.001 |
| Previous MI, no. (%) | 139,558 (28) | 33,203 (62) | <0.001 |
| Previous stroke, no. (%) | 19,318 (4) | 3,511 (7) | <0.001 |
| Peripheral vascular disease, no. (%) | 23,666 (5) | 5,572 (10) | <0.001 |
| Valvular heart disease, no. (%) | 6,475 (1) | 1,629 (3) | <0.001 |
| Renal disease, no. (%) | 13,252 (3) | 2,614 (5) | <0.001 |
| Previous PCI, no. (%) | 114,311 (23) | 23,679 (41) | <0.001 |
| Anticoagulant treatment, no. (%) | 5,166 (1) | 1,224 (2) | <0.001 |
| Ejection fraction <30%, no. (%) | 15,337 (6) | 2,798 (9) | <0.001 |

**Supplementary table 2:** Baseline and procedural characteristics of left vs. right radial access 2012-14 for PCI-CABG procedures

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Left radial****(n=2,266)** | **Right radial****(n=5,203)** | **p-value** |
| Stable angina, no. (%) | 878 (38.7) | 3,176 (61.0) | <0.001 |
| Ad hoc PCI, no. (%) | 1,272 (63.1) | 1,643 (36.0) | <0.001 |
| CCS class | 2.66±1.02 | 2.43±0.98 | <0.001 |
| Number of grafts patent | 1.85±0.99 | 1.44±1.08 | <0.001 |
| Target vessel, no. (%) Graft Left main Left anterior descending Circumflex Right | 944 (42.7)286 (12.9)387 (17.5)551 (24.9)396 (17.9) | 954 (19.0)1,203 (23.9)1,090 (21.7)1,478 (29.4)1,251 (24.9) | <0.001<0.001<0.001<0.001<0.001 |
| Chronic total occlusion PCI, no. (%) | 147 (6.9) | 480 (9.8) | <0.001 |
| Rotational atherectomy, no. (%) | 43 (1.9) | 265 (5.3) | <0.001 |
| Distal protection, no. (%) | 204 (9.3) | 190 (3.8) | <0.001 |

**Supplementary Table 3:** Multivariate model of the significant associations between covariates and femoral access for PCI-CABG procedures for native vessel by indication in 2012-14.

|  |
| --- |
| **Native vessel planned PCI** |
| **Variable** | **Adjusted OR** |  **[95% CI]** | **p-value** |
| CTO attempted  | 10.31 | [7.51-14.29] | <0.001 |
| Female gender | 1.38 | [1.20-1.57] | <0.001 |
| Acute coronary syndrome | 1.46 | [1.32-1.63] | <0.001 |
| Previous PCI attempt | 1.38 | [1.25-1.54] | <0.001 |
| Smoking history | 0.80 | [0.72-0.89] | <0.001 |
| Chronic renal failure | 1.60 | [1.24-2.05] | <0.001 |
| Chronic anticoagulation | 0.76 | [0.55-1.04] | 0.087 |
| **Native vessel ad-hoc PCI** |
| **Variable** | **Adjusted OR** |  **[95% CI]** | **p-value** |
| Dual arterial access  | 9.01 | [5.75-14.29] | <0.001 |
| Previous MI | 1.29 | [1.14-1.47] | <0.001 |
| Hypertension | 1.25 | [1.10-1.42] | <0.001 |
| Acute coronary syndrome | 1.23 | [1.09-1.39] | <0.001 |
| Operator volume (2nd tertile vs. 3rdtertile) | 0.85 | [0.74-98] | 0.028 |
| Operator volume (1st tertile vs. 3rd tertile) | 0.72 | [0.57-0.91] | 0.005 |
| Centre volume (2nd tertile vs. 3rdtertile) | 0.69 | [0.60-0.79] | <0.001 |
| Centre volume (1st tertile vs. 3rd tertile) | 0.49 | [0.40-0.61] | <0.001 |
| Chronic anticoagulation | 0.43 | [0.30-0.60] | <0.001 |

**Supplementary Table 4:** Multivariate model of the significant associations between covariates and femoral access for PCI-CABG procedures for native vessel by CTO status in 2012-14.

|  |
| --- |
| **Native vessel non-CTO PCI** |
| **Variable** | **Adjusted OR** |  **[95% CI]** | **p-value** |
| Acute coronary syndrome | 1.46 | [1.34-1.58] | <0.001 |
| Chronic renal failure | 1.44 | [1.17-1.77] | <0.001 |
| Previous PCI attempt | 1.28 | [1.17-1.39] | <0.001 |
| Female  | 1.26 | [1.13-1.40] | <0.001 |
| Diabetes mellitus | 1.19 | [1.09-1.20] | <0.001 |
| Hypertension | 1.18 | [1.08-1.30] | <0.001 |
| Q wave on ECG | 1.18 | [1.05-1.32] | 0.006 |
| Left anterior descending artery PCI | 0.86 | [0.78-0.95] | 0.002 |
| Centre volume (2nd tertile vs. 3rdtertile) | 0.80 | [0.72-0.88] | <0.001 |
| Peripheral vascular disease | 0.79 | [0.69-0.91 | 0.001 |
| Centre volume (1st tertile vs. 3rd tertile) | 0.59 | [0.51-0.68] | <0.001 |
| Chronic anticoagulation | 0.57 | [0.46-0.67] | <0.001 |
| **Native vessel CTO PCI** |
| **Variable** | **Adjusted OR** |  **[95% CI]** | **p-value** |
| Dual arterial access | 10.00 | [6.94-14.3] | <0.001 |
| Previous PCI attempt | 1.32 | [1.06-1.74] | 0.012 |
| Left circumflex artery PCI | 0.74 | [0.59-0.93] | 0.008 |

**Supplementary Table 5:** Multivariate model of the significant associations between covariates and femoral access for PCI-CABG procedures for graft vessel by indication in 2012-14.

|  |
| --- |
| **Graft vessel planned PCI** |
| **Variable** | **Adjusted OR** |  **[95% CI]** | **p-value** |
| Chronic renal failure | 1.59 | [1.17-2.16 | 0.003 |
| Operator volume (2nd tertile vs. 3rd tertile) | 0.82 | [0.71-0.95] | 0.010 |
| Operator volume (1st tertile vs. 3rd tertile) | 0.72 | [0.56-0.91] | 0.007 |
| Centre volume (2nd tertile vs. 3rd tertile) | 0.64 | [0.55-0.75] | <0.001 |
| Centre volume (1st tertile vs. 3rd tertile) | 0.53 | [0.42-0.66] | <0.001 |
| Chronic anticoagulation | 0.52 | [0.34-0.79] | <0.001 |
| **Graft vessel ad-hoc PCI** |
| **Variable** | **Adjusted OR** |  **[95% CI]** | **p-value** |
| Female gender | 1.76 | [1.12-2.75] | <0.001 |
| Age at procedure per year | 1.02 | [1.01-1.04] | 0.002 |
| Smoking history | 0.74 | [0.54-0.99] | 0.049 |

**Supplementary table 6:** Unadjusted outcomes by access site during 2012-2014 after PCI-CABG procedures

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Femoral** **(n=11,881)** | **Radial****(n=7,553)** | **p-value** |
| **Immediate procedural outcomes** |
| No. successful lesions ±SD | 1.26±0.80 | 1.27±0.77 | 0.187 |
| Final TIMI 3 flow (ACS only), no. (%) | 5,338 (90.1) | 3,108 (92.9) | <0.001 |
| Coronary perforation, no. (%) | 76 (0.6) | 41 (0.5) | 0.459 |
| Emergency surgery, no. (%) | 9 (0.07) | 3 (0.04) | 0.496 |
| Coronary dissection, no. (%) | 169 (1.5) | 133 (1.8) | 0.078 |
| Major side-branch loss, no. (%) | 44 (0.4) | 34 (0.5) | 0.470 |
| Slow flow, no. (%) | 114 (1.0) | 76 (1.1) | 0.826 |
| Access site complication, no. (%) | 139 (1.2) | 26 (0.3) | <0.001 |
| **Clinical outcomes** |
| Transfusion, no. (%) | 24 (0.2) | 3 (0.04) | 0.006 |
| Peri-procedural MI, no. (%) | 43 (0.4) | 21 (0.3) | 0.397 |
| Post-procedural acute kidney injury, no. (%) | 106 (0.9) | 45 (0.6) | 0.748 |
| In-hospital major bleed, no. (%) | 150 (1.3) | 30 (0.4) | <0.001 |
| In-hospital death, no. (%) | 121 (1.1) | 43 (0.6) | 0.001 |
| Mortality at 30 days, no. (%) | 147 (1.6) | 59 (1.1) | 0.019 |
| Mortality at 1 year, no. (%) | 547 (8.2) | 243 (6.8) | 0.011 |

**Supplementary Table 7:** Adjusted length of stay by access site 2012-2014 after PCI-CABG procedures

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Femoral****(n=11,881)** | **Radial****(n=7,553)** | **p-value** |
| **All PCI** |
| Mean ±SDMedian (IQR) | 2.4±11.11 (1) | 1.7±10.41 (1) | <0.001 |
| Same day no., (%) | 3,187 (24.6) | 3,201 (37.8) | <0.001 |
| 1-2 days no., (%) | 7,435 (57.4) | 4,214 (49.8) | <0.001 |
| 3-7 days no., (%) | 1,677 (12.9) | 771 (9.1) | <0.001 |
| **Elective PCI** |  |  |  |
| Mean ±SDMedian (IQR) | 1.6±12.01 (0) | 0.9±9.60 (1) | <0.001 |
| Same day no., (%) | 2,123 (35.7) | 2,465 (55.1) | <0.001 |
| 1-2 days no., (%) | 3,474 (58.5) | 1,893 (42.3) | <0.001 |
| 3-7 days no., (%) | 227 (3.8) | 71 (1.6) | 0.021 |
| **ACS-PCI** |
| Mean ±SDMedian (IQR) | 3.8±10.92 (0) | 3.2±12.21 (1) | 0.009 |
| Same day no., (%) | 1,064 (15.2) | 736 (18.4) | <0.001 |
| 1-2 days no., (%) | 3,961 (56.5) | 2,321 (58.1) | 0.101 |
| 3-7 days no., (%) | 1,450 (20.7) | 700 (17.5) | <0.001 |