**Supplementary Tables**

**Supplementary Table 1.** Intraoperative data

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**Supplementary Table 3.** Survival rates for the entire emergency and salvage CABG cohort

**Supplementary Table 4.** Comparative survival rates of unmatched ONCAB and OPCAB cohorts

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**Supplementary Table 6.** Cox Regression Analysis of Risk Factors for Long-Term Mortality

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| **Supplementary Table 1. Intraoperative data** | | | | | | | |
|  |  | Unmatched | | | Matched | | |
| Variable | Total CABG  (n = 459) | ONCAB  (n = 246) | OPCAB  (n = 213) | *p* value | ONCAB  (n = 181) | OPCAB  (n = 181) | *p* value |
| LIMA use | 410 (89.3) | 213 (86.6) | 197 (92.5) | 0.041 | 154 (85.1) | 166 (91.7) | 0.049 |
| Number of graft | 2.86 ± 0.85 | 2.77 ± 0.8 | 2.58 ± 0.8 | 0.016 | 2.77 ± 0.8 | 2.56 ± 0.8 | 0.015 |
| ICOR | 1.06 ± 0.40 | 1.07 ± 0.4 | 1.06 ± 0.4 | 0.824 | 1.09 ± 0.4 | 1.00 ± 0.3 | 0.014 |
| CPB time | - | 83.1 ± 40.5 | - | - | 80.6 ± 38.9 | **-** | - |
| Aortic cross clamp time | - | 35.0 ± 27.0 | - | **-** | 33.6 ± 26.6 | - | - |
| Conversion | - | - | 5 (2.3) | - | - | 5 (2.8) | - |
| CABG = coronary artery bypass grafting; CPB = cardio-pulmonary bypass; ICOR = index of completeness of revascularization; LIMA = left internal mammary artery; ONCAB = on-pump coronary artery bypass; OPCAB = off-pump coronary artery bypass | | | | | | | |

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| **Supplementary Table 2. Unmatched univariate & multivariate logistic regression for in-hospital mortality** | | | | | | | | |
| Univariate Logistic regression | | | | | Multivariate Logistic regression | | | |
| Variable | OR | 95% CI Lower | 95% CI Upper | *p* value | OR | 95% CI Lower | 95% CI Upper | *p* value |
| Age | 1.049 | 1.016 | 1.083 | 0.003 | 1.036 | 1.001 | 1.072 | 0.042 |
| Female gender | 1.623 | .808 | 3.258 | 0.174 |  |  |  |  |
| NYHA Class | 1.995 | 1.427 | 2.789 | <0.001 | 1.798 | 1.250 | 2.587 | 0.002 |
| Congestive HF | 1.403 | 0.943 | 2.088 | 0.095 |  |  |  |  |
| Number of previous MI | 1.102 | 0.748 | 1.624 | 0.624 |  |  |  |  |
| Timing of last MI | 0.977 | 0.751 | 1.270 | 0.860 |  |  |  |  |
| Diabetes | 2.165 | 1.126 | 4.162 | 0.021 | 2.084 | 1.026 | 4.232 | 0.042 |
| Hypercholesterolemia | 0.812 | 0.395 | 1.671 | 0.572 |  |  |  |  |
| Hypertension | 0.845 | 0.430 | 1.659 | 0.624 |  |  |  |  |
| Smoking | 0.993 | 0.383 | 2.573 | 0.988 |  |  |  |  |
| Renal impairement | 0.403 | 0.156 | 1.041 | 0.061 |  |  |  |  |
| Preoperative dialysis | 2.941 | 0.682 | 12.691 | 0.148 |  |  |  |  |
| Pulmonary disease | 2.814 | 1.079 | 7.343 | 0.034 |  |  |  |  |
| Cerebrovascular disease | 1.857 | 0.609 | 5.656 | 0.276 |  |  |  |  |
| Peripheral vascular disease | 0.459 | 0.107 | 1.970 | 0.295 |  |  |  |  |
| Preoperative AF | 4.635 | 1.151 | 18.661 | 0.031 |  |  |  |  |
| Extent of CAD | 1.972 | 0.989 | 3.933 | 0.054 |  |  |  |  |
| LMS disease | 2.679 | 1.387 | 5.173 | 0.003 |  |  |  |  |
| LV impairement | 1.335 | 0.853 | 2.090 | 0.206 |  |  |  |  |
| Cardiogenic Shock | 1.535 | 0.610 | 3.862 | 0.363 |  |  |  |  |
| Preoperative IABP | 1.846 | 0.992 | 2.997 | 0.059 |  |  |  |  |
| Operative urgency: Salvage | 5.071 | 2.235 | 11.507 | <0.001 | 5.364 | 2.156 | 13.344 | <0.001 |
| OPCAB | 0.641 | 0.330 | 1.245 | 0.189 |  |  |  |  |
| AF = atrial fibrillation; CABG = coronary artery bypass grafting; CAD = coronary artery disease; COPD = chronic obstructive pulmonary disease; HF = heart failure; IABP = intra-aortic balloon pump; LMS = left main stem; MI = myocardial infarction; LVEF = left ventricular ejection fraction; NYHA = New York Heart Association; OPCAB = off-pump coronary artery bypass. | | | | | | | | |

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| **Supplementary Table 3. Survival rates for the entire emergency and salvage CABG cohort** | | |
| Time (years) | Survival (%) | 95% CI |
| 1 | 88.3 | 84.9 – 90.9 |
| 5 | 84.9 | 81.3 – 88.0 |
| 10 | 78.1 | 73.7 – 81.8 |
| 15 | 68.4 | 63.2 – 73.0 |
| 20 | 52.0 | 45.7 – 57.9 |

CABG = coronary artery bypass grafting; CI = confidence interval

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| **Supplementary Table 4. Comparative survival rates of unmatched ONCAB and OPCAB cohorts** | | | |
| Time (years) | Survival (%) | 95% CI | *p* value |
| **ONCAB** | | | p = .6263 |
| 1 | 88.8 | 84.1 – 92.2 |
| 5 | 85.8 | 80.7 – 89.6 |
| 10 | 77.6 | 71.5 – 82.6 |
| 15 | 66.4 | 59.1 – 72.7 |
| 20 | 50.5 | 42.4 – 58.0 |
| **OPCAB** | | |
| 1 | 87.7 | 82.4 – 91.4 |
| 5 | 84.0 | 78.2 – 88.4 |
| 10 | 78.6 | 72.1 – 83.8 |
| 15 | 71.1 | 63.3 – 77.5 |
| 20 | 54.6 | 44.3 – 63.7 |

ONCAB = on-pump coronary artery bypass; OPCAB = off-pump coronary artery bypass grafting;

CI = confidence interval

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| **Supplementary Table 5. Comparative survival rates of matched ONCAB and OPCAB cohorts** | | | |
| Time (years) | Survival (%) | 95% CI | *p* value |
| **ONCAB** | | | p = .1016 |
| 1 | 87.6 | 81.7 – 91.6 |
| 5 | 84.0 | 77.7 – 88.7 |
| 10 | 74.5 | 66.9 – 80.5 |
| 15 | 62.1 | 53.5 – 69.6 |
| 20 | 43.1 | 34.1 – 51.8 |
| **OPCAB** | | |
| 1 | 88.8 | 83.2 – 92.7 |
| 5 | 84.5 | 78.1 – 89.1 |
| 10 | 79.4 | 72.3 – 84.9 |
| 15 | 72.5 | 64.1 – 79.2 |
| 20 | 56.2 | 45.1 – 66.0 |

ONCAB = on-pump coronary artery bypass; OPCA = off-pump coronary artery bypass;

CI = confidence interval

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| **Supplementary Table 6. Cox Regression Analysis of Risk Factors for Long-Term Mortality** | | | | | | | | |
|  | Univariate | | | | Multivariate | | | |
| Variable | HR | Lower | Upper | p-value | HR | Lower | Upper | p-value |
| Advanced age | 1.050 | 1.035 | 1.067 | <0.001 | 1.046 | 1.030 | 1.063 | 0.001 |
| Female gender | 1.249 | .901 | 1.732 | 0.189 |  |  |  |  |
| NYHA class | 1.238 | 1.069 | 1.434 | 0.004 | 1.118 | 0.957 | 1.306 | 0.159 |
| Diabetes | 1.213 | 0.861 | 1.707 | 0.270 |  |  |  |  |
| Hypercholesterolemia | 1.003 | 0.858 | 1.172 | 0.972 |  |  |  |  |
| Hypertension | 0.962 | 0.827 | 1.120 | 0.962 |  |  |  |  |
| Smoking | 1.090 | 0.788 | 1.509 | 0.603 |  |  |  |  |
| Renal dysfunction | 0.665 | 0.478 | 0.926 | 0.610 |  |  |  |  |
| Dialysis | 10.988 | 1.511 | 79.906 | 0.801 |  |  |  |  |
| Respiratory dysfunction | 0.965 | 0.711 | 1.310 | 0.818 |  |  |  |  |
| Cerebrovascular disease | 0.703 | 0.551 | 0.898 | 0.515 |  |  |  |  |
| Peripheral vascular disease | 0.759 | 0.612 | 0.942 | 0.012 | 0.845 | 0.678 | 1.053 | 0.134 |
| Atrial Fibrillation | 0.764 | 0.465 | 1.255 | 0.288 |  |  |  |  |
| Extent of coronary disease | 0.969 | 0.660 | 1.423 | 0.873 |  |  |  |  |
| LMS disease | 0.826 | 0.708 | 0.964 | 0.015 | 0.857 | 0.729 | 1.007 | 0.061 |
| Poor LVEF | 0.904 | 0.706 | 1.159 | 0.427 |  |  |  |  |
| Cardiogenic shock | 1.073 | 0.823 | 1.398 | 0.602 |  |  |  |  |
| OPCAB | 1.056 | 0.904 | 1.232 | 0.493 |  |  |  |  |
| No arterial grafts | 1.473 | 1.003 | 2.162 | 0.048 | 1.733 | 1.168 | 2.569 | 0.006 |
| SAG | 0.963 | 0.705 | 1.315 | 0.814 |  |  |  |  |
| MAG | 0.988 | 0.599 | 1.630 | 0.962 |  |  |  |  |
| TAG | 0.595 | 0.331 | 1.070 | 0.083 |  |  |  |  |
| HR = Hazard Ratio; LMS = left mains stem; LVEF = left ventricular ejection fraction; MAG = multiple arterial grafting; NYHA = New York Heart Association; OPCAB = off-pump coronary artery bypass; SAG = single arterial grafting; TAG=total arterial grafting. | | | | | | | | |