1 Supplemental Table 1: Covariates considered for multivariable regression

| Potential covariates | Number of models | Percent Missing Data |
|---|---|---|
| Postoperative atrial fibrillation | 6 | 0% |
| Preoperative ventricular arrhythmia | 3 | 0% |
| Age | 3 | 0% |
| Preoperative inotropes | 0 | 0% |
| Last creatinine | 3 | 0% |
| Last hematocrit | 4 | 0.2% |
| Last platelet count | 1 | 0.2% |
| Total bilirubin | 3 | 0.8% |
| Last INR | 1 | 0.6% |
| Total albumin | 4 | 1.0% |
| Heart Mate II device | 1 | 0% |
| LVAD volume by center | 1 | 0% |
| Year | 1 | 0% |

2 LVAD=left ventricular assist device
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5 Supplemental Table 2. Multivariable logistic regression for operative mortality

| Covariate | OR | 95% Confidence Interval | | p-value |
|---|---|---|---|---|
| Postoperative atrial fibrillation | 0.977 | 0.510 | 1.872 | 0.9443 |
| Total bilirubin | 1.164 | 0.934 | 1.45 | 0.1764 |
| Last creatinine | 1.335 | 0.909 | 1.961 | 0.1412 |
| Age | 1.028 | 1.005 | 1.052 | 0.0186 |
| Total albumin | 0.643 | 0.38 | 1.088 | 0.0996 |
| LVAD volume by center | 1.005 | 0.998 | 1.013 | 0.1659 |
| Last hematocrit | 0.948 | 0.902 | 0.996 | 0.0355 |

6 LVAD=left ventricular assist device
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10 Supplemental Table 3. Multivariable logistic regression for major morbidity

| Covariate | OR | 95% Confidence Interval | | p-value |
|---|---|---|---|---|
| Postoperative atrial fibrillation | 2.464 | 1.494 | 4.063 | 0.0004 |
| Total bilirubin | 1.370 | 1.041 | 1.802 | 0.0245 |
| Last INR | 0.620 | 0.337 | 1.142 | 0.1250 |
| Last creatinine | 1.311 | 0.913 | 1.883 | 0.1428 |
| Preoperative inotropes | 1.296 | 0.844 | 1.990 | 0.2358 |
| LVAD volume by center | 1.003 | 0.998 | 1.008 | 0.1821 |
| Last platelet count | 0.998 | 0.995 | 1.000 | 0.0431 |
| Last hematocrit | 0.948 | 0.918 | 0.979 | 0.0013 |

11 LVAD=left ventricular assist device
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15 Supplemental Table 4. Multivariable logistic regression for permanent stroke

| Covariate | OR | 95% Confidence Interval | | p-value |
|---|---|---|---|---|
| Postoperative atrial fibrillation | 1.189 | 0.416 | 3.399 | 0.7471 |
| Last hematocrit | 0.886 | 0.818 | 0.960 | 0.0032 |

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Supplemental Table 5. Multivariable logistic regression for unplanned RVAD

| Covariate | OR | 95% Confidence Interval | | p-value |
|---|---|---|---|---|
| Postoperative atrial fibrillation | 2.900 | 1.296 | 6.49 | 0.0096 |
| Last creatinine | 1.472 | 0.932 | 2.326 | 0.0973 |
| Total albumin | 2.900 | 1.296 | 6.49 | 0.0096 |

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Supplemental Table 6. Multivariable logistic regression for renal failure

| Covariate | OR | 95% Confidence Interval | | p-value |
|---|---|---|---|---|
| Postoperative atrial fibrillation | 1.963 | 0.972 | 3.967 | 0.0602 |
| Total bilirubin | 1.868 | 1.24 | 2.813 | 0.0028 |
| Last creatinine | 1.022 | 0.995 | 1.051 | 0.1108 |
| Age | 1.573 | 1.193 | 2.074 | 0.0013 |

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Supplemental Table 7. Multivariable logistic regression for cardiac arrest

| Covariate | OR | 95% Confidence Interval | | p-value |
|---|---|---|---|---|
| Postoperative atrial fibrillation | 3.423 | 1.207 | 9.706 | 0.0207 |
| Last creatinine | 0.383 | 0.098 | 1.501 | 0.1683 |

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Supplemental Table 8. Multivariable logistic regression for discharge to facility

| Covariate | OR | 95% Confidence Interval | | p-value |
|---|---|---|---|---|
| Postoperative atrial fibrillation | 2.234 | 1.246 | 4.006 | 0.0070 |
| Preoperative ventricular arrhythmia | 1.897 | 1.09 | 3.301 | 0.0235 |
| Preoperative inotropes | 1.818 | 0.947 | 3.487 | 0.0723 |
| Age | 1.037 | 1.014 | 1.061 | 0.0019 |
| LVAD volume by center | 1.004 | 0.997 | 1.01 | 0.2846 |
| Last hematocrit | 0.924 | 0.882 | 0.968 | 0.0009 |

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Supplemental Table 9. Multivariable linear regression for intensive care unit length of stay

| Covariate | Estimate | 95% Confidence Limits | | p-value |
|---|---|---|---|---|
| Postoperative atrial fibrillation | 87.74839 | 22.49032 | 153.00646 | 0.0085 |
| Preoperative ventricular arrhythmia | 73.77964 | 15.00512 | 132.55417 | 0.014 |
| Total bilirubin | 22.92516 | 0.6107 | 45.23962 | 0.0441 |
| Last INR | -16.70814 | -75.20648 | 41.7902 | 0.5749 |
| Last creatinine level | 67.24387 | 22.36706 | 112.12068 | 0.0034 |
| Preoperative inotropes | 8.38774 | -52.15811 | 68.93358 | 0.7856 |
| Age | 0.58443 | -1.54488 | 2.71375 | 0.5899 |
| Total albumin | -56.79544 | -102.88376 | -10.70712 | 0.0158 |
| LVAD volume by center | -0.55471 | -1.28446 | 0.17504 | 0.1359 |
| Last platelet | -0.10935 | -0.41307 | 0.19437 | 0.4796 |
| Last hematocrit | -0.81524 | -5.26905 | 3.63857 | 0.7192 |
| HeartMate II device | -59.93832 | -126.05372 | 6.17708 | 0.0755 |
| Year | 1.55119 | -15.44528 | 18.54767 | 0.8577 |

37  INR=international normalized ratio; LVAD=left ventricular assist device
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39  Supplemental Table 10. Multivariable linear regression for postoperative length of stay

| Covariate | Estimate | 95% Confidence Limits | | p-value |
|---|---|---|---|---|
| Postoperative atrial fibrillation | 4.9437 | 0.72892 | 9.15848 | 0.0216 |
| Preoperative ventricular arrhythmia | 1.50535 | -2.30008 | 5.31077 | 0.4374 |
| Total bilirubin | 0.01504 | -1.43069 | 1.46077 | 0.9837 |
| Last INR | -2.48553 | -6.2766 | 1.30553 | 0.1983 |
| Last creatinine level | 6.29445 | 3.38812 | 9.20078 | <0.0001 |
| Preoperative inotropes | 2.40755 | -1.47624 | 6.29133 | 0.2238 |
| Age | 0.02886 | -0.10747 | 0.16519 | 0.6776 |
| Total albumin | -2.87937 | -5.85481 | 0.09606 | 0.0578 |
| LVAD volume by center | 0.02452 | -0.02276 | 0.0718 | 0.3087 |
| Last platelet | -0.01462 | -0.03417 | 0.00492 | 0.1422 |
| Last Hematocrit | -0.06158 | -0.34999 | 0.22683 | 0.675 |
| HeartMate II device | -2.55351 | -6.81143 | 1.70442 | 0.2392 |
| Year | -0.93325 | -2.02661 | 0.16011 | 0.0942 |

40  INR=international normalized ratio; LVAD=left ventricular assist device
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43  Supplemental Table 11. Multivariable linear regression for intensive care unit cost

| Covariate | Estimate | 95% Confidence Limits | | p-value |
|---|---|---|---|---|
| Postoperative atrial fibrillation | 5488.22 | -2538.8 | 13515 | 0.1797 |
| Preoperative ventricular arrhythmia | 7664.69 | 372.8267 | 14957 | 0.0394 |
| Total bilirubin | 2315.59 | -394.608 | 5025.794 | 0.0938 |
| Last INR | -916.897 | -9471.28 | 7637.49 | 0.8333 |
| Last creatinine level | 11427 | 5893.278 | 16961 | <0.0001 |
| Preoperative inotropes | 4999.05 | -2350 | 12348 | 0.1819 |
| Age | -49.7071 | -307.374 | 207.9594 | 0.7048 |
| Total albumin | -11123 | -16771 | -5474.16 | 0.0001 |
| LVAD volume by center | -112.678 | -205.429 | -19.9274 | 0.0174 |
| Last platelet | -8.95529 | -46.2938 | 28.3832 | 0.6376 |
| Last hematocrit | -316.1071 | -868.77372 | 236.55953 | 0.2616 |
| HeartMate II device | -12183 | -20297 | -4069.02 | 0.0033 |
| Year | -4258.5 | -6496.73 | -2020.33 | 0.0002 |

44  INR=international normalized ratio; LVAD=left ventricular assist device
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47  Supplemental Table 12. Multivariable linear regression for total hospital cost

| Covariate | Estimate | 95% Confidence Limits | | p-value |
|---|---|---|---|---|
| Postoperative atrial fibrillation | 19183 | -16918 | 55283 | 0.2969 |
| Preoperative ventricular arrhythmia | 10637 | -22158 | 43431 | 0.5242 |
| Total bilirubin | 12156 | -32.3236 | 24345 | 0.0506 |
| Last INR | -52569 | -91041 | -14097 | 0.0075 |
| Last creatinine level | 26023 | 1134.969 | 50910 | 0.0405 |
| Preoperative inotropes | 10269 | -22783 | 43320 | 0.5418 |
| Age | 557.096 | -601.73 | 1715.921 | 0.3453 |
| Total albumin | -32356 | -57759 | -6952.21 | 0.0127 |
| LVAD volume by center | 108.0781 | -309.058 | 525.2141 | 0.6109 |
| Last platelet | -56.5075 | -224.433 | 111.4181 | 0.5087 |
| Last hematocrit | -2373.61 | -4859.16 | 111.946 | 0.0612 |
| HeartMate II device | -31116 | -67608 | 5375.19 | 0.0945 |
| Year | 3151.24 | -6914.79 | 13217 | 0.5387 |

48  INR=international normalized ratio; LVAD=left ventricular assist device