

**Table S1.** Administrative codes.

| <b>Comorbidity</b>                 | <b>International Classification of Diseases, 9.0 Clinical Modifications codes</b>                                                                                                     |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cardiac arrest                     | 427.5                                                                                                                                                                                 |
| Cardiogenic shock                  | 785.51                                                                                                                                                                                |
| Respiratory failure                | 518.81, 518.82, 518.85, 786.09, 799.1, 96.7, 96.70, 96.71, 96.72                                                                                                                      |
| Hepatic failure                    | 570.0, 572.2, 573.3, 573.4                                                                                                                                                            |
| Coronary angiography               | 37.22, 37.23, 88.53-88.56                                                                                                                                                             |
| Percutaneous coronary intervention | 00.66, 36.01, 36.02, 36.05, 36.06, 36.07, 88.57                                                                                                                                       |
| Invasive mechanical ventilation    | 96.7, 96.70, 96.71, 96.72                                                                                                                                                             |
| Hemodialysis                       | 39.95                                                                                                                                                                                 |
| Vascular complications             | 904.0, 904.1, 904.2, 904.4, 904.40, 904.41, 904.7, 904.8, 904.9, 998.2, 999.2, 997.2, 997.7, 997.79, 447.0, 39.31, 39.41, 39.49, 39.52, 39.53, 39.56, 39.57, 39.58, 39.59, 39.79      |
| Lower limb amputation              | 84.1, 84.10, 84.11, 84.12, 84.13, 84.14, 84.15, 84.16, 84.17, 84.18, 84.19                                                                                                            |
| Post-operative hemorrhage/hematoma | 998.11, 998.12, 285.1                                                                                                                                                                 |
| Acute ischemic stroke              | 433.01, 433.11, 433.21, 433.31, 433.81, 433.91, 436.0, 437.1, 434, 434.0, 434.00, 434.01, 434.1, 434.10, 434.11, 434.9, 434.90, 434.91, 435, 435.0, 435.1, 435.2, 435.3, 435.8, 435.9 |
| Intracranial hemorrhage            | 430, 431, 432.0, 432.1, 432.9                                                                                                                                                         |
| Acute kidney injury                | 584, 584.5, 584.6, 584.7, 584.8, 584.9                                                                                                                                                |

**Table S2.** Additional baseline characteristics.

| <b>Characteristic</b>                                   |                                         | <b>Same-day ECMO (N=795)</b> | <b>Non-simultaneous ECMO (N=119)</b> | <b>P</b> |
|---------------------------------------------------------|-----------------------------------------|------------------------------|--------------------------------------|----------|
| <b>Primary payer</b>                                    | <b>Medicare</b>                         | 36.7                         | 36.1                                 | 0.02     |
|                                                         | <b>Medicaid</b>                         | 13.0                         | 4.2                                  |          |
|                                                         | <b>Private</b>                          | 38.5                         | 42.0                                 |          |
|                                                         | <b>Others<sup>a</sup></b>               | 11.8                         | 17.6                                 |          |
| <b>Quartile of median household income for zip code</b> | <b>0-25<sup>th</sup></b>                | 18.0                         | 26.1                                 | 0.01     |
|                                                         | <b>26<sup>th</sup>-50<sup>th</sup></b>  | 28.9                         | 16.8                                 |          |
|                                                         | <b>51<sup>st</sup>-75<sup>th</sup></b>  | 19.2                         | 25.2                                 |          |
|                                                         | <b>75<sup>th</sup>-100<sup>th</sup></b> | 33.9                         | 31.9                                 |          |
| <b>Prior coronary artery bypass grafting</b>            |                                         | 3.1                          | 4.2                                  | 0.58     |
| <b>Prior pacemaker</b>                                  |                                         | 0.0                          | 4.2                                  | <0.001   |
| <b>Prior implantable cardioverter defibrillator</b>     |                                         | 1.9                          | 5.0                                  | 0.05     |
| <b>Weekend admission</b>                                |                                         | 26.7                         | 35.3                                 | 0.03     |
| <b>Hospital teaching status and location</b>            | <b>Rural</b>                            | 1.4                          | 0.0                                  | 0.04     |
|                                                         | <b>Urban non-teaching</b>               | 3.9                          | 8.4                                  |          |
|                                                         | <b>Urban teaching</b>                   | 94.7                         | 91.6                                 |          |
| <b>Hospital bed-size</b>                                | <b>Small</b>                            | 8.6                          | 4.2                                  | 0.21     |
|                                                         | <b>Medium</b>                           | 17.6                         | 21.0                                 |          |
|                                                         | <b>Large</b>                            | 73.8                         | 74.8                                 |          |
| <b>Hospital region</b>                                  | <b>Northeast</b>                        | 37.7                         | 36.1                                 | 0.16     |
|                                                         | <b>Midwest</b>                          | 20.5                         | 13.4                                 |          |
|                                                         | <b>South</b>                            | 25.8                         | 33.6                                 |          |
|                                                         | <b>West</b>                             | 16.0                         | 16.8                                 |          |

**Legend:** Represented as percentage or median (interquartile range); <sup>a</sup>Self-Pay, No Charge, Others.

**Abbreviations:** ECMO: extracorporeal membrane oxygenation.