**Supplementary Table 1 – Breakdown of diagnoses of patients included in the study**

|  |  |
| --- | --- |
| **Diagnosis** | **N (%)** |
| **Ascites** | 75,462 (100.0) |
| **Cirrhosis** | 67,037 (88.8) |
| **Varices** | 17,664 (23.4) |
| **Spontaneous bacterial peritonitis** | 7,418 (9.8) |
| **Hepatic encephalopathy** | 19,458 (25.8) |
| **Portal hypertension** | 29,046 (38.4) |
| **Hepatocellular carcinoma** | 5,466 (7.2) |

**Supplementary Table 2 – Breakdown of diagnoses of patients included in the study**

|  |  |
| --- | --- |
| **Number of diagnoses** | **N (%)** |
| 0 | 436 (0.6) |
| 1 | 31,905 (41.8) |
| 2 | 25,583 (33.5) |
| 3 | 13,996 (18.3) |
| 4 | 4,024 (5.3) |
| 5 | 403 (0.5) |
| 6 | 17 (0.02) |

**Supplementary Table 3 – Multivariable model predicting early paracentesis**

|  |  |  |
| --- | --- | --- |
| **Variable** | **Odds Ratio (95% CI)** | **P-value** |
| **High-risk** | 0.74 (0.71-0.78) | <0.01 |
| **Decade of life** | 0.94 (0.93-0.95) | <0.01 |
| **Female** | 0.89 (0.87-0.92) | <0.01 |
| **Weekend** | 0.60 (0.58-0.63) | <0.01 |
| **Transplant Hospital** | 0.95 (0.83-1.08) | 0.44 |
| **State** |  |  |
| **Florida** | REF |  |
| **New York** | 1.03 (0.94-1.13) | 0.49 |
| **Washington** | 1.57 (1.42-1.73) | <0.01 |
| **≥ 5 comorbidities** | 0.80 (0.78-0.83) | <0.01 |

CI = Confidence interval

**Supplementary Table 4 – Sensitivity analysis of the multivariable model predicting early paracentesis**

|  |  |  |
| --- | --- | --- |
| **Variable** | **Odds Ratio (95% CI)** | **P-value** |
| **High-risk** | 0.66 (0.63-0.69) | <0.01 |
| **Decade of life** | 0.95 (0.93-0.96) | <0.01 |
| **Female** | 0.89 (0.86-0.92) | <0.01 |
| **Weekend** | 0.87 (0.84-0.90) | <0.01 |
| **Transplant Hospital** | 0.86 (0.76-0.97) | <0.01 |
| **State** |  |  |
| **Florida** | REF |  |
| **New York** | 0.94 (0.86-1.02) | 0.14 |
| **Washington** | 1.39 (1.25-1.53) | <0.01 |
| **≥ 5 comorbidities** | 0.80 (0.77-0.83) | <0.01 |

CI = Confidence interval

This sensitivity analysis specifically examined patients admitted from 6pm to 12am and liberalized the definition of early paracentesis to include within the first 2 days of hospitalization.

**Supplementary Table 5 – Multivariable model predicting inpatient mortality**

|  |  |  |
| --- | --- | --- |
| **Variable** | **Odds Ratio (95% CI)** | **P-value** |
| **Early paracentesis** | 0.68 (0.63-0.73) | <0.01 |
| **Decade of life** | 1.06 (1.03-1.09) | <0.01 |
| **Female** | 0.95 (0.90-1.00) | 0.07 |
| **Variceal bleed** | 1.73 (1.55-1.94) | <0.01 |
| **State** |  |  |
| **Florida** | REF |  |
| **New York** | 1.96 (1.70-2.25) | <0.01 |
| **Washington** | 1.89 (1.59-2.25) | <0.01 |
| **≥ 5 comorbidities** | 0.93 (0.86-0.99) | 0.03 |

CI = Confidence interval

**Supplementary Table 6 – Multivariable model predicting inpatient spontaneous bacterial peritonitis-associated mortality**

|  |  |  |
| --- | --- | --- |
| **Variable** | **Odds Ratio (95% CI)** | **P-value** |
| **Early paracentesis** | 0.83 (0.73-0.94) | 0.01 |
| **Decade of life** | 1.09 (1.04-1.15) | <0.01 |
| **Female** | 0.98 (0.97-1.11) | 0.81 |
| **Variceal bleed** | 1.60 (1.20-2.12) | <0.01 |
| **State** |  |  |
| **Florida** | REF |  |
| **New York** | 1.89 (1.56-2.29) | <0.01 |
| **Washington** | 1.53 (1.20-1.95) | <0.01 |
| **≥ 5 comorbidities** | 0.80 (0.70-0.92) | <0.01 |

CI = Confidence interval

**Supplementary Table 7 – Multivariable model predicting 30-day readmission**

|  |  |  |
| --- | --- | --- |
| **Variable** | **Odds Ratio (95% CI)** | **P-value** |
| **Early paracentesis** | 0.87 (0.82-0.92) | <0.01 |
| **Decade of life** | 1.02 (0.99-1.05) | 0.17 |
| **Female** | 0.85 (0.80-0.91) | <0.01 |
| **Variceal bleed** | 1.46 (1.29-1.64) | <0.01 |
| **State** |  |  |
| **Florida** | REF |  |
| **New York** | 1.00 (0.90-1.10) | 0.96 |
| **Washington** | 1.52 (1.36-1.70) | <0.01 |
| **≥ 5 comorbidities** | 0.93 (0.92-0.95) | <0.01 |
| **Discharge home** | 1.14 (1.07-1.22) | <0.01 |

CI = Confidence interval