**Supplementary Table 1: Multinomial Logistic Regression Model for Treatment**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Transplant** | **Resection** | **Ablation** | **TACE** |
|  | **OR** | **95% CI** | **p-value** | **OR** | **95% CI** | **p-value** | **OR** | **95% CI** | **p-value** | **OR** | **95% CI** | **p-value** |
| **Primary payer** |  |  | <0.001 |  |  | <0.001 |  |  | <0.001 |  |  | 0.085 |
| **Private**  | Ref |  |  | Ref |  |  | Ref |  |  | Ref |  |  |
|  **Medicare** | 0.63 | (0.47, 0.84) |  | 0.74 | (0.63, 0.87) |  | 1.17 | (0.93, 1.48) |  | 0.99 | (0.81, 1.20) |  |
|  **Medicaid**  | 0.23 | (0.15, 0.33) |  | 0.40 | (0.32, 0.51) |  | 0.52 | (0.40, 0.68) |  | 0.76 | (0.53, 1.09) |  |
|  **Other** | 0.26 | (0.15, 0.45) |  | 0.42 | (0.32, 0.54) |  | 0.52 | (0.37, 0.74) |  | 0.64 | (0.43, 0.96) |  |
| **Age** |  |  | <0.001 |  |  | <0.001 |  |  | 0.001 |  |  | <0.001 |
|  **≤64** | Ref |  |  | Ref |  |  | Ref |  |  | Ref |  |  |
|  **65-79** | 0.47 | (0.33, 0.68) |  | 1.19 | (1.02, 1.38) |  | 0.90 | (0.72, 1.12) |  | 0.84 | (0.69, 1.01) |  |
|  **≥80** | 0.04 | (0.01, 0.16) |  | 0.53 | (0.42, 0.67) |  | 0.54 | (0.38, 0.75) |  | 0.53 | (0.39, 0.71) |  |
| **Gender** |  |  | 0.088 |  |  | <0.001 |  |  | 0.021 |  |  | 0.825 |
| **Male** | Ref |  |  | Ref |  |  | Ref |  |  | Ref |  |  |
| **Female** | 1.22 | (0.97, 1.54) |  | 1.30 | (1.15, 1.47) |  | 1.23 | (1.03, 1.46) |  | 0.98 | (0.83, 1.16) |  |
| **Race** |  |  | <0.001 |  |  | <0.001 |  |  | <0.001 |  |  | 0.363 |
|  **African-American**  | Ref |  |  | Ref |  |  | Ref |  |  | Ref |  |  |
|  **Caucasian** | 2.66 | (1.92, 3.68) |  | 1.82 | (1.48, 2.23) |  | 1.77 | (1.36, 2.30) |  | 1.15 | (0.93, 1.41) |  |
|  **Hispanic** | 2.18 | (1.40, 3.39) |  | 1.24 | (0.94, 1.64) |  | 1.46 | (1.05, 2.03) |  | 1.29 | (0.97, 1.72) |  |
|  **Other/Unknown** | 2.41 | (1.62, 3.61) |  | 1.79 | (1.39, 2.32) |  | 2.03 | (1.47, 2.80) |  | 1.19 | (0.90, 1.58) |  |
| **Geographic Region** |  |  | 0.071 |  |  | 0.844 |  |  | 0.279 |  |  | 0.288 |
|  **Midwest**  | Ref |  |  | Ref |  |  | Ref |  |  | Ref |  |  |
|  **Northeast**  | 0.75 | (0.45, 1.25) |  | 1.10 | (0.82, 1.46) |  | 1.56 | (0.84, 2.89) |  | 1.07 | (0.77, 1.50) |  |
|  **South** | 0.68 | (0.45, 1.04) |  | 0.99 | (0.75, 1.31) |  | 1.09 | (0.58, 2.07) |  | 1.31 | (0.95, 1.80) |  |
|  **West** | 0.50 | (0.29, 0.86) |  | 0.97 | (0.71, 1.32) |  | 1.34 | (0.73, 2.47) |  | 1.42 | (0.79, 2.58) |  |
| **Hepatitis C** | 2.63 | (2.06, 3.35) | <0.001 | 1.25 | (1.04, 1.50) | 0.020 | 1.88 | (1.53, 2.30) | <0.001 | 1.37 | (1.04, 1.80) | 0.025 |
| **Hepatitis B** | 1.40 | (0.91, 2.16) | 0.128 | 1.89 | (1.51, 2.36) | <0.001 | 1.10 | (0.77, 1.59) | 0.600 | 1.18 | (0.85, 1.64) | 0.316 |
| **Alcohol** | 2.60 | (1.86, 3.64) | <0.001 | 0.45 | (0.36, 0.57) | <0.001 | 2.43 | (1.83, 3.24) | <0.001 | 1.15 | (0.91, 1.46) | 0.243 |
| **NASH** | 3.66 | (2.74, 4.88) | <0.001 | 0.94 | (0.81, 1.08) | 0.371 | 4.11 | (3.37, 5.01) | <0.001 | 1.61 | (1.38, 1.88) | <0.001 |
| **Liver Decompensation Features** |  |  | <0.001 |  |  | <0.001 |  |  | <0.001 |  |  | <0.001 |
|  **Zero** | Ref |  |  | Ref |  |  | Ref |  |  | Ref |  |  |
|  **One** | 0.56 | (0.44, 0.73) |  | 0.29 | (0.24, 0.34) |  | 0.27 | (0.21, 0.33) |  | 0.41 | (0.34, 0.49) |  |
|  **Two** | 0.48 | (0.33, 0.70) |  | 0.12 | (0.09, 0.18) |  | 0.17 | (0.12, 0.24) |  | 0.36 | (0.28, 0.46) |  |
|  **Three or Greater** | 0.56 | (0.31, 1.03) |  | 0.12 | (0.06, 0.23) |  | 0.14 | (0.07, 0.28) |  | 0.41 | (0.26, 0.64) |  |
| **Elixhauser Comorbidity Score** |  |  | 0.355 |  |  | 0.016 |  |  | <0.001 |  |  | <0.001 |
|  **<3** | Ref |  |  | Ref |  |  | Ref |  |  | Ref |  |  |
|  **≥3** | 1.12 | (0.88, 1.42) |  | 0.85 | (0.75, 0.97) |  | 0.61 | (0.51, 0.72) |  | 0.63 | (0.54, 0.73) |  |

Noninvasive was used as the reference category. Model adjusts for age, hepatitis C, hepatitis B, alcohol, NASH, liver decompensation features, and modified Elixhauser comorbidity score (determined through backwards selection as in other models).