**SUPPLEMENTARY MATERIAL**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | **All index admissions** | **Index admissions without readmission** | **Index admission with at least 1 readmission** | **p- value** |
|   | n= 89174 (100%) | n= 67886 (76.1%) | n = 21289 (23.9%) |  |
|  |
| ***PATIENT CHARACTERISTICS*** |  |  |  |  |
| Age categories |  |  |  | 0.055 |
| 18-39 years | 8.9 | 8.9 | 8.9 |
|  40-64 years | 29.5 | 29.7 | 28.8 |
| > 65 years | 61.6 | 61.4 | 62.3 |
| Gender |  |  |  | <0.001 |
| Male | 34.5 | 33.6 | 37.3 |
| Female | 65.5 | 66.4 | 62.7 |
| Congestive Heart Failure | 14.8 | 13.4 | 19.1 | <0.001 |
| Alcohol abuse | 3.8 | 3.6 | 4.7 | <0.001 |
| Diabetes without complications | 20.3 | 19.7 | 22.3 | <0.001 |
| Diabetes with chronic complications | 6.5 | 5.8 | 8.6 | <0.001 |
| Liver Disease | 5.5 | 5.0 | 7.0 | <0.001 |
| Renal failure | 21.4 | 19.6 | 27.2 | <0.001 |
| Primary Health Insurance |  |  |  | <0.001 |
| Medicare | 68.2 | 67.1 | 71.6 |
| Medicaid | 8.1 | 7.5 | 9.9 |
| Private Insurance | 18.2 | 19.6 | 13.8 |
| Self-pay | 2.7 | 2.9 | 2.2 |
| Other/Missing | 2.8 | 2.9 | 2.5 |
|  |  |  |  |  |
| ***OUTCOMES*** |  |  |  |  |
| Median Length of Stay (IQR), days | 5 (4) | 4 (4) | 5 (5) | <0.001 |
| Disposition |  |  |  | <0.001 |
| Routine home discharge | 55.1 | 57.3 | 48.2 |
| Transfer to facilities (ICF, SNF etc.) | 26.1 | 25.5 | 28.1 |
| Home Health Care | 17.7 | 16.2 | 22.5 |
| Against Medical Advice | 0.5 | 0.4 | 0.7 |
| Other | 0.6 | 0.6 | 0.5 |

**Supplemental Table 1.** Demographic characteristics, comorbidities, and outcomes of index admissions (with and without readmissions).

All cells in the table represent percentage distribution unless otherwise specified in first column. p-value in the last column represents the level of significance of comparison between **index admission with and without readmission groups**. Chi square test and Student’s t-test were used to compare categorical and continuous variables respectively.

|  |  |
| --- | --- |
| **Variable** | **Cox proportional hazard regression** |
| **Age** | HR (95% CI; p-value) |
| Age > 65 years | Referent |
| Age 40-64 years | 1.19 (1.09-1.28; p<0.001) |
| Age 18-39 years | 1.45 (1.31-1.62; p<0.001) |
| **Gender** |  |
| Female | Referent |
| Male | 1.09 (1.04-1.15; p=0.001) |
| **LOS < 7 days** | Referent |
| LOS > 7 days | 1.20 (1.14-1.26; p<0.001) |
| **Primary insurance** |  |
| Private Insurance | Referent |
| Medicare | 1.38 (1.27-1.49; p<0.001) |
| Medicaid | 1.50 (1.36-1.65; p<0.001) |

**Supplemental Table 2.** Results of cox proportional hazard regression model demonstrating Hazard ratio (HR) and 95% Confidence Interval (CI) for thirty-day readmission after an index hospitalization for *C. difficile.*