**Table 2**. Descriptive Statistics and Comparison Between Patients with and without UTI related hospitalization or ED visits

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Total****(n = 48,336)** | **Without UTI related hospitalization or ED visits****(n = 46,647)** | **With UTI related hospitalization or ED visits****(n = 1,689)** |
| Demographics  |
| **Age** |  |  |  |
|  Age (mean) | 77.84 | 77.75 | 80.32**\*** |
| **Sex** |  |  |  |
|  Female (%) | 63.23 | 63.11 | 66.49**\*** |
|  Male (%) | 36.77 | 36.89 | 33.51**\*** |
| **Race**  |  |  |  |
|  Asian or PI (%) | 6.2 | 6.21 | 5.98 |
|  Black (%) | 20.11 | 20.01 | 20.49 |
|  Hispanic (%) | 15.3 | 15.3 | 15.45 |
|  White (%) | 58.45 | 58.46 | 58.38 |
| Previous history and diagnosis |
| **Inpatient Stay 14 Days Prior to home care admission**  |  |  |  |
|  Long-term nursing facility (%) | 0.68 | 0.68 | 0.71 |
|  Skilled nursing facility (%) | 8.62 | 8.53 | 10.89**\*** |
|  Short-stay acute hospital (%) | 54.28 | 54.3 | 53.7 |
|  Long-term care hospital (%) | 1.25 | 1.23 | 1.95**\*** |
|  Inpatient rehabilitation hospital/unit (%) | 6.52 | 6.46 | 8.11**\*** |
|  Psychiatric hospital or unit (%) | 0.47 | 0.48 | 0.3 |
|  Others (%) | 0.74 | 0.74 | 0.77 |
|  Long-term care (long-term care hospital/nursing home/SNF/TCU) (%) | 10.44 | 10.33 | 13.44**\*** |
|  NA (%) | 29.69 | 29.84 | 25.34**\*** |
| **Prior condition**  |  |  |  |
|  Urinary incontinence (%) | 23.57 | 23.15 | 35.29**\*** |
|  Indwelling (%) /suprapubic catheter (%) | 1.41 | 1.21 | 6.93**\*** |
|  Intractable pain (%) | 10.51 | 10.58 | 8.53**\*** |
|  Decision (%) | 10.99 | 10.77 | 16.93**\*** |
|  Behavior (%) | 1.04 | 1.02 | 1.66**\*** |
|  Memory (%) | 7.82 | 7.61 | 13.56**\*** |
|  None (%) | 48.74 | 49.15 | 37.54**\*** |
|  Any (%) | 37.44 | 36.98 | 50.21**\*** |
| **Diagnosis** |  |  |  |
|  Acute Myocardial Infarction (%) | 19.27 | 19.24 | 19.83 |
|  AIDS (%) | 1.45 | 1.46 | 1.07 |
|  Arthritis (%) | 20.14 | 20.38 | 13.5**\*** |
|  Cancer (%) | 6.01 | 6.03 | 5.33 |
|  Cardiac Dysrhythmias (%) | 14.32 | 14.23 | 16.87**\*** |
|  Cerebral Degeneration (%) | 3.58 | 3.55 | 4.38 |
|  Dementia (%) | 12.9 | 12.65 | 19.78**\*** |
|  Depression (%) | 12.93 | 12.89 | 13.97 |
|  Diabetes (%) | 32.39 | 32.24 | 36.71**\*** |
|  Genitourinary (%) | 0 | 0 | 0 |
|  Heart Failure (%) | 15.04 | 14.9 | 18.83**\*** |
|  Hypertension (%) | 66.83 | 66.91 | 64.71 |
|  Neurological disorder (%) | 6.31 | 6.23 | 8.58**\*** |
|  Pulmonary disease (%) | 16.05 | 16.08 | 14.98 |
|  Peripheral Vascular Disease (%) | 3.38 | 3.4 | 2.78 |
|  Renal (%) | 10.44 | 10.44 | 10.42 |
|  Skin Ulcer (%) | 12.01 | 11.62 | 22.79**\*** |
|  Stroke (%) | 9.44 | 9.37 | 11.43**\*** |
| **Overall \*** |  |  |  |
|  Stable (%) | 11.26 | 11.32 | 9.8 |
|  Likely to Be Stable (%) | 73.73 | 73.9 | 68.94 |
|  Fragile (%) | 14.05 | 13.84 | 19.89 |
|  Serious (%) | 0.96 | 0.94 | 1.37 |

**\*** p<.05, t-test or Fisher’s exact test, as appropriate (완성)

**Table 3**. Final multivariable logistic regression model for UTI related hospitalization or ED visits

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Category** | **Description** | **References** | **AOR** | **95% CI** |
| **Socio-demographics**  | Age  | Continuous | 1.012\*\* | [1.006, 1.017] |
| Sex | Male | 1.31\*\* | [1.15, 1.51] |
| **Previous history and diagnosis**     | Arthritis | No | 0.81\* | [0.68, 0.97] |
| Cardiac dysrhythmias | No | 1.19\* | [1.01, 1.41] |
| Cerebral degeneration | No | 0.71\* | [0.52, 0.97] |
| Diabetes Mellitus | No | 1.24\* | [1.1, 1.41] |
| Skin Ulcer | No | 1.41\*\* | [1.2, 1.66] |
| Discharged from IP facility-NA: Patient was not discharged from an inpatient facility | No | 0.7\*\* | [0.6, 0.82] |
| **Risk for Hospitalization** | History of falls | No | 1.24\* | [1.08, 1.44] |
| Multiple hospitalizations | No | 1.16\* | [1.02, 1.32] |
| **Integumentary Status** | Having Surgical wound | None | 0.63\*\* | [0.52, 0.75] |
| **Elimination Status**     | Treated for a Urinary Tract Infection in the past 14 days | No | 1.84\*\* | [1.56, 2.17] |
| Urinary catheter presence | No | 1.27\* | [1.05, 1.53] |
| When Urinary Incontinence Occurred |  |  |  |
| * Night or day only
 | None/Timed voiding/Occasional stress incontinence | 1.39 | [0.93, 2.08] |
| * Day and night
 | 1.28\* | [1.06, 1.53] |
| * Urinary catheter
 | 5.7\*\* | [4.54, 7.14] |
| Bowel Incontinence Frequency |  |  |  |
| * Less than once or one to three times weekly
 | Never, rarely or unknown | 1.26\* | [1.03, 1.53] |
| * Four to six times weekly
 | 1.33 | [0.99, 1.79] |
| * Daily
 | 1.4\* | [1.11, 1.77] |
| * More often than once daily
 | 1.72\* | [1.19, 2.49] |
| * Bowel ostomy
 | 1.77\* | [1.19, 2.64] |
| **ADL/IADLs**  | Ambulation |  |  |  |
| * With the use of a one-handed device (e.g. cane, single crutch, hemi-walker), able to independently walk on even and uneven surfaces and negotiate stairs with or without railings.
 | Independent | 0.37\* | [0.21, 0.67] |
| * Requires use of a two-handed device (e.g., walker or crutches) to walk alone on a level surface and/or requires human supervision or assistance to negotiate stairs or steps or uneven surfaces.
 |  | 0.61 | [0.35, 1.06] |
| * Able to walk only with the supervision or assistance of another person at all times.
 |  | 0.62 | [0.35, 1.08] |
| * Chairfast, unable to ambulate but is able to wheel self independently.
 |  | 0.67 | [0.35, 1.26] |
| * Chairfast, unable to ambulate and is unable to wheel self.
 |  | 0.72 | [0.4, 1.3] |
| * Bedfast, unable to ambulate or be up in a chair.
 |  | 0.81 | [0.44, 1.51] |
| Ability to Plan and Prepare Light Meals |  |  |  |
| * Unable to prepare light meals on a regular basis due to physical, cognitive, or mental limitations.
 | Independent | 1.52\* | [1.03, 2.23] |
| * Unable to prepare any light meals or reheat any delivered meals.
 |  | 1.78\* | [1.21, 2.64] |
| **Care Management** | ADL assistance |  |  |  |
|   | * Non-agency caregiver(s) currently provides assistance
 | No assistance needed | 1.37 | [0.93, 2.0] |
| * Non-agency caregiver(s) needs training
 | 1.24 | [0.81, 1.9] |
| * Non-agency caregiver(s) are not likely to provide assistance, unclear or no caregiver
 | 1.79\* | [1.2, 2.67] |
| **Medication Regime** | Aldosterone antagonists | No | 1.36\* | [1.00, 1.86] |
| Antibacterials and antiseptics, general | No | 2.74\* | [1.02, 7.37] |
| Anti-diarrheals | No | 1.6\* | [1.02, 2.51] |
| Antinauseants | No | 1.37\* | [1.09, 1.73] |
| Antiparasitics | No | 1.71\* | [1.17, 2.5] |
| Psychotropics | No | 1.24\* | [1.06, 1.45] |
| Sulfonamides | No | 1.56\* | [1.15, 2.09] |
| **Vital Signs** | Body temperature | normal or low (oral ≤ 38.2°C (100.8 °F), axillary (the armpit) ≤ 37.0°C (98.6 °F)) | 2.68\* | [1.46, 4.93] |

Note. **AOR: Adjusted Odds ratio, CI: confidence interval,** \* p-value <0.05, \*\* p-value <0.0001