**Supplemental Digital Content 2.**

**Table 1.** Effects of mobility on potentially preventable 30-day readmissions following home health agency discharge, estimated from a multilevel model adjusted for sociodemographic and clinical characteristics.

|  |  |
| --- | --- |
| **Patient Characteristic** | **Odds Ratio\* (95% CI)** |
| **Mobility†** |  |
| Quartile 1 (most independent) | Reference |
| Quartile 2 | 1.04 (1.00 - **1.08**) |
| Quartile 3 | 1.30 (1.27 - 1.34) |
| Quartile 4 (most dependent) | 1.58 (1.53 - 1.63) |
| **Age (years**) |  |
| 18-65 | Reference |
| 66-70 | 0.99 (**0.95** - 1.04) |
| 71-75 | 1.05 (1.00 - 1.10) |
| 76-80 | 1.14 (1.08 - 1.19) |
| 81+ | 1.23 (1.17 - 1.29) |
| **Sex** |  |
| Male | Reference |
| Female | **0.98** (**0.96** - **1.00**) |
| **Race/Ethnicity** |  |
| White | Reference |
| Black | 1.03 (**0.99** - 1.07) |
| Hispanic | 0.99 (0.94 - 1.04) |
| Other | 0.97 (0.91 - **1.03**) |
| **Medicare Original Entitlement‡** |  |
| Age | Reference |
| Disability | 1.15 (1.11 - 1.18) |
| ESRD | **1.40** (**1.24** - **1.58**) |
| ESRD and Disability | 1.25 (**1.14** - **1.38**) |
| **Dual Eligibility§** |  |
| No | Reference |
| Yes | 1.18 (1.15 - 1.21) |
| **Dialysis during Index Hospitalization** |  |
| No | Reference |
| Yes | 1.17 (0.85 - 1.60) |
| **Index Hospitalization Length of Stay (days)** |  |
| 1-2 | Reference |
| 3 | **1.08** (1.05 - **1.12**) |
| 4 | 1.17 (1.12 - 1.21) |
| 5 | 1.19 (1.14 - 1.24) |
| 6-7 | 1.20 (**1.15** - 1.25) |
| 8+ | 1.23 (1.18 - 1.28) |
| **ICU/CCU** |  |
| 0 | Reference |
| 1-2 | 1.01 (0.97 - 1.04) |
| 3-4 | 1.00 (0.97 - 1.04) |
| 5+ | 0.95 (0.92 - **0.99**) |
| **Acute Stays over Prior Year (count)** |  |
| 0 | Reference |
| 1 | **1.41 (1.37 - 1.45)** |
| 2 | **1.80 (1.74 - 1.86)** |
| 3 | **2.11 (2.02 - 2.20)** |
| 4+ | **2.86 (2.74 - 2.98)** |

**Table 2.** Effects of self-care on potentially preventable 30-day readmissions following home health agency discharge, estimated from a multilevel model adjusted for sociodemographic and clinical characteristics.

|  |  |
| --- | --- |
| **Patient Characteristic** | **Odds Ratio\* (95% CI)** |
| **Self-Care** |  |
| Quartile 1 (most independent) | Reference |
| Quartile 2 | 1.09 (1.05 - **1.12**) |
| Quartile 3 | 1.34 (1.30 - 1.38) |
| Quartile 4 (most dependent) | 1.64 (1.59 - 1.69) |
| **Age (years**) |  |
| 18-65 | Reference |
| 66-70 | 0.99 (0.94 - **1.04**) |
| 71-75 | 1.04 (0.99 - 1.09) |
| 76-80 | 1.13 (1.07 - **1.18**) |
| 81+ | 1.22 (1.16 - 1.28) |
| **Sex** |  |
| Male | Reference |
| Female | 0.99 (0.97 - 1.01) |
| **Race/Ethnicity** |  |
| White | Reference |
| Black | 1.02 (0.99 - 1.06) |
| Hispanic | 0.97 (**0.93** - 1.02) |
| Other | 0.96 (0.90 - 1.02) |
| **Medicare Original Entitlement‡** |  |
| Age | Reference |
| Disability | 1.15 (1.11 - **1.18**) |
| ESRD | **1.40** (1.25 - **1.58**) |
| ESRD and Disability | **1.26** (**1.15** - **1.39**) |
| **Dual Eligibility§** |  |
| No | Reference |
| Yes | 1.17 (1.14 - 1.21) |
| **Dialysis during Index Hospitalization** |  |
| No | Reference |
| Yes | 1.17 (0.85 - 1.60) |
| **Index Hospitalization Length of Stay (days)** |  |
| 1-2 | Reference |
| 3 | 1.09 (1.05 - 1.13) |
| 4 | 1.17 (1.12 - 1.21) |
| 5 | 1.19 (1.14 - 1.24) |
| 6-7 | 1.20 (**1.15** - 1.25) |
| 8+ | 1.23 (1.18 - **1.27**) |
| **ICU/CCU** |  |
| 0 | Reference |
| 1-2 | **1.01** (0.97 - 1.04) |
| 3-4 | 1.00 (0.97 - **1.03**) |
| 5+ | 0.95 (0.92 - 0.98) |
| **Acute Stays over Prior Year (count)** |  |
| 0 | Reference |
| 1 | **1.41 (1.37 - 1.45)** |
| 2 | **1.80 (1.74 - 1.86)** |
| 3 | **2.10 (2.01 - 2.20)** |
| 4+ | **2.84 (2.72 - 2.96)** |

**Table 3.** Effects of cognitive function on potentially preventable 30-day readmissions following home health agency discharge, estimated from a multilevel model adjusted for sociodemographic and clinical characteristics.

|  |  |
| --- | --- |
| **Patient Characteristic** | **Odds Ratio\* (95% CI)** |
| **Cognition‖** |  |
| Intact | Reference |
| Impaired | 1.21 (1.18 - 1.24) |
| **Age (years**) |  |
| 18-65 | Reference |
| 66-70 | 1.02 (0.97 - 1.06) |
| 71-75 | 1.09 (1.04 - 1.14) |
| 76-80 | 1.19 (1.14 - **1.25**) |
| 81+ | **1.33** (1.27 - 1.40) |
| **Sex** |  |
| Male | Reference |
| Female | **1.00** (**0.98** - 1.02) |
| **Race/Ethnicity** |  |
| White | Reference |
| Black | 1.04 (1.00 - **1.07**) |
| Hispanic | 1.00 (**0.96** - 1.05) |
| Other | 0.98 (0.92 - 1.05) |
| **Medicare Original Entitlement‡** |  |
| Age | Reference |
| Disability | 1.17 (1.13 - 1.21) |
| ESRD | **1.41** (**1.25** - **1.59**) |
| ESRD and Disability | 1.26 (**1.15** - **1.39**) |
| **Dual Eligibility§** |  |
| No | Reference |
| Yes | 1.19 (1.16 - 1.23) |
| **Dialysis during Index Hospitalization** |  |
| No | Reference |
| Yes | 1.16 (0.85 - 1.59) |
| **Index Hospitalization Length of Stay (days)** |  |
| 1-2 | Reference |
| 3 | 1.09 (1.05 - 1.13) |
| 4 | 1.17 (1.13 - 1.22) |
| 5 | **1.19** (1.15 - **1.24**) |
| 6-7 | 1.21 (**1.16** - 1.26) |
| 8+ | 1.24 (**1.19** - 1.29) |
| **ICU/CCU** |  |
| 0 | Reference |
| 1-2 | 1.00 (0.97 - 1.03) |
| 3-4 | 1.00 (0.97 - **1.03**) |
| 5+ | 0.95 (0.92 - 0.98) |
| **Acute Stays over Prior Year (count)** |  |
| 0 | Reference |
| 1 | **1.42 (1.38 - 1.46)** |
| 2 | **1.82 (1.76 - 1.88)** |
| 3 | **2.14 (2.05 - 2.24)** |
| 4+ | **2.92 (2.80 - 3.05)** |

**Table 4.** Effects of mobility and cognitive function on potentially preventable 30-day readmissions following home health agency discharge, estimated from a multilevel model adjusted for sociodemographic and clinical characteristics.

|  |  |
| --- | --- |
| **Patient Characteristic** | **Odds Ratio\* (95% CI)** |
| **Mobility†** |  |
| Quartile 1 (most independent) | Reference |
| Quartile 2 | 1.03 (**1.00** - 1.07) |
| Quartile 3 | 1.29 (**1.26** - 1.33) |
| Quartile 4 (most dependent) | 1.53 (**1.49** - 1.58) |
| **Cognition‖** |  |
| Intact | Reference |
| Impaired | 1.08 (1.05 - 1.10) |
| **Age (years**) |  |
| 18-65 | Reference |
| 66-70 | 0.99 (0.94 - **1.04**) |
| 71-75 | 1.04 (1.00 - 1.10) |
| 76-80 | 1.13 (**1.07** - 1.19) |
| 81+ | **1.21** (1.16 - **1.27**) |
| **Sex** |  |
| Male | Reference |
| Female | **0.98** (**0.95** - 1.00) |
| **Race/Ethnicity** |  |
| White | Reference |
| Black | 1.03 (**0.99** - 1.07) |
| Hispanic | 0.99 (0.94 - **1.04**) |
| Other | 0.97 (0.91 - 1.03) |
| **Medicare Original Entitlement‡** |  |
| Age | Reference |
| Disability | 1.15 (1.11 - 1.18) |
| ESRD | **1.40** (1.25 - **1.58**) |
| ESRD and Disability | **1.26** (**1.14** - 1.38) |
| **Dual Eligibility§** |  |
| No | Reference |
| Yes | 1.18 (1.15 - 1.21) |
| **Dialysis during Index Hospitalization** |  |
| No | Reference |
| Yes | 1.16 (0.85 - 1.59) |
| **Index Hospitalization Length of Stay (days)** |  |
| 1-2 | Reference |
| 3 | **1.08** (1.05 - **1.12**) |
| 4 | 1.17 (1.12 - 1.21) |
| 5 | 1.19 (1.14 - 1.24) |
| 6-7 | 1.20 (1.16 - 1.25) |
| 8+ | 1.23 (1.18 - 1.28) |
| **ICU/CCU** |  |
| 0 | Reference |
| 1-2 | 1.01 (0.97 - 1.04) |
| 3-4 | 1.00 (0.97 - 1.04) |
| 5+ | 0.95 (0.92 - 0.99) |
| **Acute Stays over Prior Year (count)** |  |
| 0 | Reference |
| 1 | **1.41 (1.37 - 1.45)** |
| 2 | **1.80 (1.74 - 1.86)** |
| 3 | **2.11 (2.02 - 2.20)** |
| 4+ | **2.85 (2.73 - 2.98)** |

**Table 5.** Effects of self-care and cognitive function on potentially preventable 30-day readmissions following home health agency discharge, estimated from a multilevel model adjusted for sociodemographic and clinical characteristics.

|  |  |
| --- | --- |
| **Patient Characteristic** | **Odds Ratio\* (95% CI)** |
| **Self-Care Quartile** |  |
| Quartile 1 (most independent) | Reference |
| Quartile 2 | **1.08** (1.05 - 1.12) |
| Quartile 3 | 1.33 (1.29 - 1.37) |
| Quartile 4 (most dependent) | 1.61 (1.56 - 1.66) |
| **Cognition‖** |  |
| Intact | Reference |
| Impaired | 1.04 (1.01 - 1.06) |
| **Age (years**) |  |
| 18-65 | Reference |
| 66-70 | 0.99 (0.94 - 1.03) |
| 71-75 | 1.04 (0.99 - 1.09) |
| 76-80 | 1.13 (1.07 - 1.18) |
| 81+ | **1.21** (1.16 - **1.27**) |
| **Sex** |  |
| Male | Reference |
| Female | 0.99 (0.97 - 1.01) |
| **Race/Ethnicity** |  |
| White | Reference |
| Black | 1.02 (0.99 - 1.06) |
| Hispanic | 0.97 (**0.93** - 1.02) |
| Other | 0.96 (0.90 - 1.02) |
| **Medicare Original Entitlement‡** |  |
| Age | Reference |
| Disability | 1.15 (1.11 - **1.18**) |
| ESRD | **1.40** (1.25 - **1.58**) |
| ESRD and Disability | 1.26 (**1.15** - **1.39**) |
| **Dual Eligibility§** |  |
| No | Reference |
| Yes | 1.17 (1.14 - 1.20) |
| **Dialysis during Index Hospitalization** |  |
| No | Reference |
| Yes | 1.16 (0.85 - 1.59) |
| **Index Hospitalization Length of Stay (days)** |  |
| 1-2 | Reference |
| 3 | 1.09 (1.05 - 1.13) |
| 4 | 1.17 (1.12 - 1.21) |
| 5 | 1.19 (1.14 - 1.24) |
| 6-7 | 1.20 (**1.15** - 1.25) |
| 8+ | 1.23 (1.18 - 1.28) |
| **ICU/CCU** |  |
| 0 | Reference |
| 1-2 | 1.00 (0.97 - 1.04) |
| 3-4 | 1.00 (0.97 - **1.03**) |
| 5+ | 0.95 (0.92 - 0.98) |
| **Acute Stays over Prior Year (count)** |  |
| 0 | Reference |
| 1 | **1.41 (1.37 - 1.45)** |
| 2 | **1.80 (1.74 - 1.86)** |
| 3 | **2.10 (2.01 - 2.19)** |
| 4+ | **2.83 (2.72 - 2.96)** |

Abbreviations: CI, confidence interval; ESRD, end-stage renal disease; ICU/CCU, intensive care unit or critical care unit

\* Odds ratios are from multilevel models adjusted for all patient characteristics listed in the Table, as well as comorbidities (hierarchical condition categories) and index hospitalization diagnostic category and primary procedure category (if applicable).

† Mobility and self-care domains created using items from Home Health Outcome and Assessment Information Set (OASIS). The mobility domain included three items related to transfers and ambulation/locomotion. The self-care domain included seven items related to feeding, preparing light meals, grooming, dressing, bathing, and toilet hygiene.

‡ Original reason for Medicare enrollment

§ Eligible for Medicare and Medicaid

‖ Cognition categories created using two items from the OASIS. Patients were categorized as ‘Intact’ if they were scored as ‘Alert/oriented, able to focus and shift attention, comprehends and recalls task directions independently’ on the cognitive functioning item and as ‘Expresses complex ideas, feelings, and needs clearly, completely, and easily in all situations with no observable impairment’ on the speech/oral expression item.