**SUPPLEMENTAL TABLES**

**Table S1.** Measurements of associations by hospital outcomes

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| **Re-admissions** |
| Author | Year | Adjusted for Cognition | Adjusted for Comorbidities | Functional Metric (Best-Worst) | Re-Admission Timeline | Odds Ratio (95% CI) |
| Bohannon | 2004 | - | Yes | Barthel Index (20-0) | 1 year | Pre-stroke:<20: Ref20: 0.86 (0.76-0.97)Postadmission:<10: Ref>10: 0.93 (0.89-0.97) |
| Corsonello | 2012 | Yes | Yes | Short Physical Performance Battery (12-0) | 1 year | 0.92 (0.85-1.0) |
| Fisher | 2016 | - | - | Katz ADL (6-0), Number of Steps | 30 day | Any difficulty with ADL: RefNo ADL difficulty: 0.37 (0.15-0.90)Steps:0.90 (0.82-0.98) |
| Kane | 1998 | Yes | Yes | ADL/IADL (0-100) | 1 year | - |
| Narain | 1988 | Yes | Yes | Lawton ADL (7-0) | 6 month | - |
| Tonkikh | 2016 | Yes | Yes | Modified Barthel Index (100-0) | 30 day | 10 point decrease in BI from admission to discharge:1.32 (1.02-1.72) |
| **Discharge Location** |
| Author | Year | Adjusted for Cognition | Adjusted for Comorbidities | Functional Metric (Best-Worst) | Discharge Location | Odds Ratio (95% CI) |
| Bohannon | 2002 | - | - | Barthel Index (20-0) | Home vs. Elsewhere | - |
| Choo | 2006 | - | - | FIM (126-18) | Home vs. Elsewhere | - |
| Emhoff | 1991 | - | - | FIM (126-18) | Home vs. IRF | - |
| Farrell | 2006 | - | - | FIM (126-18) | Home vs. Elsewhere | - |
| Fortinsky | 1999 | Yes | Yes | Change in Function Before Hospitalization, Change in Function During Hospitalization | Discharge to SNF or admission to SNF within 30 days after discharge | Stable-Stable: RefDecline-No improvement: 3.19 (1.46-6.96)Stable-decline: 2.77 (1.29-5.96)Decline-improvement: 1.46 (0.68-3.13) |
| Kane | 1998 | Yes | Yes | ADL/IADL (0-100) | Home vs. Home with Assistance vs. SNF vs. IRF | - |
| Mauthe | 1996 | - | - | FIM (126-18) | Home vs. SNF vs. IRF | - |
| Narain | 1988 | Yes | Yes | Lawton ADL (7-0) | SNF vs. Home | - |
| Roberts | 2016 | - | - | AcuteFIM transformed to FIM (126-18) | Home or Assisted Living vs. SNF/IRF | 1.06 (1.05-1.07)A |
| Sood | 2011 | - | Yes | Katz ADL (0-12) | Discharge to SNF | 1.25 (1.15-1.37) |
| Stein | 2015 | Yes | - | Barthel Index (100-0) | SNF/IRF vs. Home and IRF vs. SNF | Discharge to SNF/IRF vs. Home:BI 0-20: 111.11 (5.00-250.00)BI: 25-40: 62.50 (27.03-142.86)BI: 45-60: 25.64 (13.70-47.62)BI 65-80: 9.43 (5.10-15.54)BI: 85-100: RefDischarge to IRF vs. SNF:BI: 0-20: 1.72 (0.88-3.36)BI: 25-40: 3.26 (1.45-7.30)BI: 45-60 2.47 (1.17-5.21)BI 65-100: Ref |
| **Length of Stay** |
| Author | Year | Adjusted for Cognition | Adjusted for Comorbidities | Functional Metric (Best-Worst) | Mean LOS (SD) | P value | Linear Regression Beta Coefficient (SE) | P value |
| Bohannon | 2002 | - | - | Barthel Index (20-0) | - | - | - | - |
| Choo | 2006 | - | - | FIM(126-18) | FIM < 110: 53.5 (30.2)FIM > 110: 20.5 (11.3) | <.001 | - | - |
| Narain | 1988 | Yes | Yes | Lawton ADL (7-0) | ADL < 6: 29.9 (61.69)ADL > 6: 13.2 (27.86) | <.001 | - | - |
| Volpato | 2008 | Yes | Yes | Short Physical Performance Battery (12-0) | - | - | -0.62 (0.22) | .005 |
| **Mortality** |  |
| Author | Year | Adjusted for Cognition | Adjusted for Comorbidities | Functional Metric (Best-Worst) | Follow-up Time | Odds Ratio (CI) | Hazard Ratio (CI) | Relative Risk Ratio (CI) |
| Barnes | 2013 | Yes | Yes | Number of ADL Dependencies (0-5) | 1 year mortality | 1: Ref2-4: 1.46 (0.87-2.44)5: 3.6 (1.87-6.93) | - | - |
| Corsonello | 2012 | Yes | Yes | Short Physical Performance Battery (12-0) | 1 year mortality | - | 0.86 (0.78-0.95) | - |
| Covinsky | 2000 | - | Yes | Katz ADL (6-0) | 1 year mortality | 1.07 (0.99-1.16) | - | - |
| Covinsky | 1997 | - | Yes | Number of ADL Dependencies (0-6) | Hospital and 1 year mortality | Hospital mortality0: Ref1-3: 2.31 (0.45-11.90)4-5: 5.24 (1.12-24.39)6: 13.70 (3.13-58.82)1 year mortality0: Ref1-3: 1.41 (0.86-2.31)4-5: 1.91 (1.15-3.17)6: 4.44 (2.69-7.35) | - | - |
| Davis | 1995 | Yes | - | Total Bathing Assistance (-) | Hospital Mortality | CVD patients:6.69 (2.89-15.49)PNA patients:4.98 (2.74-9.08) | - | - |
| Socorro Garcia | 2015 | Yes | Yes | Barthel Index (100-0) | 30 day mortality | For every 5 points decrease in BI score:1.13 (1.03-1.25) | - | - |
| Inouye | 1998 | Yes | Yes | Any IADL impairment | 2 year mortality | - | - | 1.9 (1.1-3.2) |
| Justice | 1996 | - | Yes | Global ADL Stages (1-4) | Hospital mortality | - | 1.6 (1.2-2.1)B | - |
| Matzen | 2012 | - | Yes | Barthel Index (100-0) | 3 month and 1 year survival | 3 month survivalBI 80-100: RefBI 50-79: 0.74 (0.55-0.99)BI 25-49: 0.44 (0.33-0.59)BI 0-24: 0.18 (0.14-0.24)1 year survivalBI 80-100: RefBI 50-79: 0.80 (0.65-0.97)BI 25-49: 0.55 (0.45-0.68)BI 0-24: 0.29 (0.24-0.35) | - | - |
| Narain | 1988 | Yes | Yes | Lawton ADL (7-0) | In hospital and 6 month mortality | - | - | - |
| Ostir | 2013 | - | Yes | Comparing Last 24 hours to First 24 Hours of Hospitalization Number of Steps/Day: (Positive is an increase in step activity) | 2 year mortality | - | > 820: Ref175-819: 0.75 (0.24-2.31)-58 to 174: 3.24 (1.27-8.30)< -59: 4.21 (1.65-10.77) | - |
| Rozzini | 2005 | Yes | Yes | Barthel Index (100-0) | 6 month mortality | - | - | BI Index scores 2 weeks prior to admission compared scores at admission: No Change in BI: Ref5-25 Decline in BI: 1.3 (0.6-3.0)30+ Decline in BI: 2.8 (1.3-5.7) |
| Sood | 2011 | - | Yes | Katz ADL (0-12) | Hospital mortality | 1.16 (1.11-1.22) | - | - |
| Torres | 2004 | Yes | Yes | Barthel Index (100-0) | 30 day and 1.5 year mortality | 30 day:0.96 (0.94-0.98)18 month:0.97 (0.95-0.99) | - | - |
| Valiani | 2017 | - | Yes | Braden Activity Subscale (4-1) | 6 month and 4.5 year mortality | Comparing those with impairment (BAS < 3) to those who remained mobile (BAS > 3):6 month: 1.67 (1.40-1.96)4.5 years (1.23 (1.08-1.39) | - | - |
| **Physical Functional Status Post-Acute Care** |
| Author | Year | Adjusted for Cognition | Adjusted for Comorbidities | Functional Metric (Best-Worst) | Odds Ratio (95% CI) |
| Barnes | 2013 | Yes | Yes | Number of ADL Dependencies (0-5) | RecoveryC:1: Ref2-4: 0.39 (0.23-0.65)5: 0.14 (0.06-0.31)DependenceD:1: Ref2-4: 1.83 (1.06-3.14)5: 1.44 (0.73-2.85) |
| Corsonello | 2012 | Yes | Yes | Short Physical Performance Battery (12-0) | Functional Decline:0.80 (0.69-0.88) |
| Covinsky | 2000 | - | Yes | Katz ADL (6-0) | - |
| Fortinsky | 1999 | Yes | Yes | Change in Function Before Hospitalization, Change in Function During Hospitalization | - |
| Gabbe | 2008 | - | Yes | FIM Motor Score (91-13) | Returning to work/study at 6 months:1.03 (1.01-1.04) |
| Zaslavsky | 2015 | Yes | Yes | Modified Barthel Index (100-0) | Total functional recovery at 1 month:Decline-decline: RefStable-stable: 6.0 (3.3-10.9)Stable-improvement: 3.6 (1.6-8.2)Decline-improvement: 2.3 (1.3-4.0)Decline-stable: 1.4 (0.5-4.1)Stable-decline: 1.3 (0.6-2.5) |

Odds ratios adjusted for age and sex unless otherwise noted. Reported odds ratios are from the original manuscripts without additional independent statistical analysis or calculations.

A: Model adjustments for covariates were not reported

B: Model did not adjust for age and sex

C: Recovery: Fully independent in all ADL at 1 year, based on number of ADL dependencies at discharge

D: Dependence: Continued dependence in at least one ADL at 1 year, based on number of ADL dependencies at discharge

**Abbreviations**

CI: Confidence Interval

SNF: Skilled Nursing Facility

IRF: Inpatient Rehabilitation Facility

CVD: Cardiovascular disease

BAS: Braden Activity Subscale

**Table S2.** Use of Barthel Index (100-0) and FIM Instrument (126-18) and their associated outcomes

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Author | Year | Population Type | Adjusted for Cognition | Adjusted for Comorbidities | Functional Metric (Best-Worst) | Outcome | Results |
| Socorro Garcia | 2015 | Elderly | Yes | Yes | Barthel Index (100-0) | 30 day mortality | For every 5 points decrease in BI score:1.13 (1.03-1.25) |
| Matzen | 2012 | Elderly | - | Yes | Barthel Index (100-0) | 3 month and 1 year survival | 3 month survival ORBI 80-100: RefBI 50-79: 0.74 (0.55-0.99)BI 25-49: 0.44 (0.33-0.59)BI 0-24: 0.18 (0.14-0.24)1 year survival OR:BI 80-100: RefBI 50-79: 0.80 (0.65-0.97)BI 25-49: 0.55 (0.45-0.68)BI 0-24: 0.29 (0.24-0.35) |
| Rozzini | 2005 | Elderly | Yes | Yes | Barthel Index (100-0) | 6 month mortality | BI Index scores 2 weeks prior to admission compared scores at admission: No Change in BI: Ref5-25 Decline in BI: 1.3 (0.6-3.0)30+ Decline in BI: 2.8 (1.3-5.7) |
| Stein | 2015 | Stroke | Yes | - | Barthel Index (100-0) | SNF/IRF vs. Home and IRF vs. SNF | Discharge to SNF/IRF vs. Home:BI 0-20: 111.11 (5.00-250.00)BI: 25-40: 62.50 (27.03-142.86)BI: 45-60: 25.64 (13.70-47.62)BI 65-80: 9.43 (5.10-15.54)BI: 85-100: RefDischarge to IRF vs. SNF:BI: 0-20: 1.72 (0.88-3.36)BI: 25-40: 3.26 (1.45-7.30)BI: 45-60 2.47 (1.17-5.21)BI 65-100: Ref |
| Torres | 2004 | Elderly with pneumonia | Yes | Yes | Barthel Index (100-0) | 30 day and 1.5 year mortality | 30 day OR:0.96 (0.94-0.98)1.5 year OR: 0.97 (0.95-0.99) |
| Choo | 2006 | Burns | - | - | FIM (126-18) | Discharge to Home vs. Elsewhere, LOS | Discharge Locations (Number of patients)FIM < 110: IRF 14, SNF/Acute care hospital 5FIM > 110: Home 17P value: <0.0001Mean LOS (SD): FIM < 110: 53.5 (30.2)FIM > 110: 20.5 (11.3)P value: <.001 |
| Emhoff | 1991 | Trauma | - | - | FIM (126-18) | Discharge to Home vs. IRF | Home FIM Improvement: 50.4IRF FIM Improvement: 21.2P value <.001 |
| Farrell | 2006 | Burns | - | - | FIM (126-18) | Discharge Home vs. Elsewhere | FIM locomotion > 4, 94.8% Discharged homeFIM locomotion < 3, 97.9% Discharged to another setting (not home) |
| Gabbe | 2008 | Trauma | - | Yes | FIM (126-18) | Physical Functional Status Post-Acute Care | Returning to work/study at 6 months OR:1.03 (1.01-1.04) |
| Mauthe | 1996 | Stroke | - | - | FIM (126-18) | Discharge Home vs. SNF vs. IRF | Number of patients discharged home categorized by FIM:18-29: 130-49: 3 50-69: 770-89: 3190-126: 36Number of patients discharged to SNF categorized by FIM:18-29: 4330-49: 2950-69: 1470-89: 1190-126: 1Number of patients discharged to IRF categorized by FIM:18-29: 1530-49: 2350-69: 3670-89: 2190-126: 8Global p value: <.001 |

Odds ratios, hazard ratios, and relative risk adjusted for age and sex. Reported results are from the original manuscripts without additional independent statistical analysis or calculations.