**Supplemental Table 2.** Results of Multivariate Regression Models with Multiple Imputation of Missing Data (Including Interaction Effects; sensitivity analysis)

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| **Dependent variable: LOS ≥ 10 Days** (n =8202; chi-square = 1031.5; *P* < 0.001; AUC = 0.72) |
|  | Unstandardized coefficients | OR | 95% CI for OR | *P* |
| B | Std. error | Lower bound | Upper bound |
| Age | 0.01 | 0.01 | 1.01 | 1.00 | 1.02 | 0.010 |
| Gender | 0.10 | 0.05 | 1.10 | 1.00 | 1.23 | 0.062 |
| ED-MEWS | 0.11 | 0.02 | 1.12 | 1.09 | 1.15 | < 0.001 |
| CCI | 0.08 | 0.01 | 1.08 | 1.07 | 1.10 | < 0.001 |
| CFS ≥6 | 0.23 | 0.07 | 1.25 | 1.09 | 1.43 | 0.001 |
| HoD | 1.28 | 0.11 | 3.60 | 2.91 | 4.45 | < 0.001 |
| ACS | 1.57 | 0.13 | 4.80 | 3.74 | 6.17 | < 0.001 |
| Dc gen med | -0.88 | 0.08 | 0.42 | 0.36 | 0.49 | < 0.001 |
| Dc geri med | 0.15 | 0.10 | 1.16 | 0.95 | 1.41 | 0.149 |
| CFS ≥6\* Dc geri med | 0.23 | 0.13 | 1.26 | 0.99 | 1.61 | 0.062 |
| HoD\* Dc geri med | -0.81 | 0.17 | 0.45 | 0.32 | 0.62 | < 0.001 |
| ACS\* Dc geri med | -0.43 | 0.20 | 0.65 | 0.44 | 0.97 | 0.036 |
| Dc surgery | -0.01 | 0.08 | 0.99 | 0.85 | 1.15 | 0.868 |
| **Dependent variable: inpatient mortality** (N = 8202; chi-square = 728.6; *P* < 0.001; AUC = 0.80) |
|  | B | Std. error | OR | 95% CI for OR | *P* |
| Age | 0.06 | 0.01 | 1.06 | 1.04 | 1.08 | < 0.001 |
| Gender | -0.26 | 0.09 | 0.77 | 0.64 | 0.92 | 0.005 |
| ED-MEWS | 0.47 | 0.02 | 1.60 | 1.53 | 1.67 | < 0.001 |
| CCI | 0.13 | 0.01 | 1.14 | 1.11 | 1.17 | < 0.001 |
| CFS ≥6 | 0.38 | 0.11 | 1.46 | 1.17 | 1.82 | 0.001 |
| HoD | 0.38 | 0.11 | 1.46 | 1.17 | 1.82 | 0.001 |
| ACS | -0.15 | 0.23 | 0.86 | 0.55 | 1.34 | 0.499 |
| Dc gen med | 0.32 | 0.13 | 1.38 | 1.06 | 1.79 | 0.017 |
| Dc geri med | 0.01 | 0.21 | 1.01 | 0.67 | 1.53 | 0.957 |
| CFS ≥\* Dc Geri med | 0.29 | 0.23 | 1.34 | 0.85 | 2.12 | 0.209 |
| HoD\* Dc geri med | -0.20 | 0.30 | 0.82 | 0.46 | 1.46 | 0.496 |
| ACS\* Dc geri med | 0.23 | 0.34 | 1.26 | 0.65 | 2.45 | 0.501 |
| Dc surgery | 0.19 | 0.15 | 1.21 | 0.90 | 1.62 | 0.219 |
| **Dependent variable: delayed discharge** (n = 8202; chi-square = 492.4; *P* < 0.001; AUC = 0.67) |
|  | B | Std. Error | Odds ratio | 95% Confidence Interval for Odds ratio | p |
| Age | 0.03 | 0.01 | 1.03 | 1.02 | 1.04 | < 0.001 |
| Gender | 0.04 | 0.06 | 1.04 | 0.93 | 1.16 | 0.467 |
| ED-MEWS | 0.02 | 0.02 | 1.02 | 0.99 | 1.05 | 0.306 |
| CCI | 0.02 | 0.01 | 1.02 | 1.00 | 1.04 | 0.018 |
| CFS ≥6  | 0.28 | 0.07 | 1.32 | 1.14 | 1.53 | < 0.001 |
| HoD | 0.91 | 0.11 | 2.48 | 2.01 | 3.06 | < 0.001 |
| ACS | 0.99 | 0.13 | 2.69 | 2.10 | 3.43 | < 0.001 |
| Dc gen med | -0.26 | 0.08 | 0.77 | 0.66 | 0.91 | 0.002 |
| Dc geri med | 0.38 | 0.11 | 1.46 | 1.18 | 1.79 | < 0.001 |
| CFS ≥6\* Dc geri med | 0.00 | 0.13 | 1.00 | 0.78 | 1.29 | 0.986 |
| HoD\* Dc geri med | -0.27 | 0.17 | 0.76 | 0.55 | 1.06 | 0.108 |
| ACS\* Dc geri med | -0.22 | 0.20 | 0.80 | 0.54 | 1.18 | 0.259 |
| Dc surgery | -0.08 | 0.09 | 0.93 | 0.78 | 1.10 | 0.388 |
| **Dependent variable: discharge to care home (institutionalization)** (n = 8202; chi-square = 670.9; *P* < 0.001; AUC = 0.76) |
|  | B | Std. error | OR | 95% CI for OR | *P* |
| Age | 0.05 | 0.01 | 1.05 | 1.03 | 1.06 | < 0.001 |
| Gender | 0.38 | 0.08 | 1.47 | 1.24 | 1.73 | < 0.001 |
| ED-MEWS | 0.01 | 0.02 | 1.01 | 0.97 | 1.05 | 0.730 |
| CCI | 0.03 | 0.01 | 1.03 | 1.01 | 1.06 | 0.021 |
| CFS ≥ | 0.66 | 0.11 | 1.94 | 1.56 | 2.40 | < 0.001 |
| HoD | 1.20 | 0.13 | 3.32 | 2.56 | 4.32 | < 0.001 |
| ACS | 0.76 | 0.18 | 2.13 | 1.50 | 3.03 | < 0.001 |
| Dc gen med | 0.09 | 0.13 | 1.09 | 0.84 | 1.42 | 0.502 |
| Dc geri med | 0.59 | 0.18 | 1.80 | 1.27 | 2.55 | 0.001 |
| CFS ≥6\* Dc geri med | 0.26 | 0.18 | 1.30 | 0.91 | 1.86 | 0.155 |
| HoD\* Dc geri med | -0.25 | 0.20 | 0.78 | 0.53 | 1.15 | 0.211 |
| ACS\* Dc geri med | 0.03 | 0.25 | 1.03 | 0.62 | 1.68 | 0.923 |
| Dc surgery | 0.05 | 0.14 | 1.05 | 0.79 | 1.39 | 0.741 |
| **Dependent variable: 30-d readmission** (n = 8202; chi-square = 189.6; *P* < 0.001; AUC = 0.59) |
|  | B | Std. error | OR | 95% CI for OR | *P* |
| Age | 0.02 | 0.00 | 1.02 | 1.01 | 1.03 | < 0.001 |
| Gender | -0.06 | 0.05 | 0.95 | 0.86 | 1.04 | 0.263 |
| ED-MEWS | -0.09 | 0.02 | 0.92 | 0.89 | 0.94 | < 0.001 |
| CCI | 0.05 | 0.01 | 1.06 | 1.04 | 1.07 | < 0.001 |
| CFS ≥6 | 0.15 | 0.06 | 1.17 | 1.03 | 1.32 | 0.018 |
| HoD | -0.02 | 0.11 | 0.98 | 0.79 | 1.22 | 0.883 |
| ACS | 0.34 | 0.13 | 1.40 | 1.09 | 1.79 | 0.008 |
| Dc gen med | 0.24 | 0.07 | 1.27 | 1.10 | 1.47 | 0.001 |
| Dc geri med | 0.21 | 0.10 | 1.23 | 1.01 | 1.49 | 0.040 |
| CFS ≥6\* Dc geri med | -0.35 | 0.13 | 0.70 | 0.55 | 0.90 | 0.005 |
| HoD\* Dc geri med | 0.29 | 0.17 | 1.34 | 0.95 | 1.88 | 0.096 |
| ACS\* Dc geri med | 0.06 | 0.20 | 1.06 | 0.72 | 1.57 | 0.767 |
| Dc surgery | -0.18 | 0.08 | 0.84 | 0.72 | 0.98 | 0.023 |

NOTE: The reference category for gender is male (male=0; female=1). Abbreviations: ACS, acute confusional state; AUC, area under the curve; CFS, Clinical Frailty Scale; CCI, Charlson Comorbidity Index; CI, confidence interval; Dc, discharge; ED-MEWS, Emergency Department Modified Early Warning Score; HoD, history of dementia; Gen Med, General Medicine; Geri Med, Geriatric Medicine; LOS, length of stay; n, number; OR, odds ratio.