

Appendix Table 3. Multivariable regression model results of association between morning discharges and ED LOS

Predictors	Multivariable Model			
	RR	95% CI - LL	95% CI - UL	P-Value
Intercept	8.020	7.610	8.470	<0.001
Total Number of AM Discharges	0.999	0.997	1.000	0.307
Age	1.000	1.000	1.000	<0.001
Gender - M	0.992	0.986	0.997	0.002
Charlson Comorbidity Index - 1	1.000	0.993	1.010	0.972
Charlson Comorbidity Index - 2+	1.000	0.998	1.010	0.151
LAPS	1.000	1.000	1.000	<0.001
Day of Admission - Weekend	1.050	1.040	1.060	<0.001
Time of Admission - Daytime	0.964	0.958	0.970	<0.001
Previous Admission to GIM - Yes	0.972	0.964	0.980	<0.001
GIM Census	1.010	1.010	1.010	<0.001
Total number of GIM discharges	0.991	0.991	0.992	<0.001

Legend:

The absolute number of morning discharge was modelled as a continuous variable in a multivariable negative binomial regression model. Multivariable regression models were adjusted for patient baseline characteristics, the total number of GIM discharges on the day of admission, GIM census on the day of admission, hospital, and study month as fixed-effects. Patients and admitting physicians were included as random-effects. Other reference levels include gender (F), Charlson comorbidity index (0), day of admission (weekday), time of admission (nighttime), and previous admission to GIM (no).

Abbreviations: GIM, General Internal Medicine; LAPS, Laboratory-based Acute Physiology Score; IQR, interquartile range; SD, standard deviation