

Supplemental Table. Predictors of Hospital Acquired Complications by Multivariate Analysis (Multiple Imputation Analysis).

Patient Predictors			
Admission Day	OR	95% CI	p-value
Weekend admission	1.21	1.20, 1.22	< 0.01
Weekday admission	Reference		
Race	OR	95% CI	p-value
White	Reference		
Black	0.77	0.74, 0.79	< 0.01
Hispanic	0.77	0.74, 0.80	< 0.01
Asian Pacific Islander	0.71	0.67, 0.75	< 0.01
Native American	0.87	0.77, 0.98	0.03
Other	0.88	0.82, 0.94	<0.01
Payer Information	OR	95% CI	p-value
Medicare	0.86	0.83, 0.89	< 0.01
Medicaid	0.65	0.62, 0.68	< 0.01
Private Insurance	Reference		
Self-Pay	1.35	1.28, 1.43	< 0.01
No Charge	1.11	0.97, 1.27	0.14
Other	2.04	1.93, 2.16	< 0.01
Gender	OR	95% CI	p-value
Female	0.89	0.87, 0.92	< 0.01
Male	Reference		
Comorbidities	OR	95% CI	p-value
No comorbidities	Reference		
One	0.70	0.69, 0.72	< 0.01
Two or more	0.55	0.53, 0.58	<0.01
Age	OR	95% CI	p-value
< 18 years old	0.49	0.47, 0.52	< 0.01
19-30 years old	0.43	0.41, 0.46	< 0.01
31-40 years old	0.38	0.37, 0.40	< 0.01
41-50 years old	0.42	0.40, 0.43	< 0.01
51-65 years old	0.41	0.40, 0.42	< 0.01
66-80 years old	0.57	0.56, 0.58	< 0.01
Over 80 years old	Reference		
All Patient Refined DRG – Severity	OR	95% CI	p-value
Minor loss of function	Reference		
Moderate loss of function	1.41	1.38, 1.45	<0.01
Major loss of function	1.79	1.73, 1.86	<0.01
Extreme loss of function	2.63	2.51, 2.75	<0.01
Hospital Predictors			
Hospital Region	OR	95% CI	p-value
Northeast	Reference		
Midwest	1.19	1.10, 1.28	<0.01

South	1.23	1.14, 1.32	<0.01
West	1.27	1.18, 1.38	< 0.01
Hospital Location	OR	95% CI	p-value
Rural	Reference		
Urban	0.96	0.92, 1.00	0.05
Hospital Teaching Status	OR	95% CI	p-value
Non-teaching	Reference		
Teaching	1.32	1.25, 1.38	< 0.01
Hospital Bed Size	OR	95% CI	p-value
Small	Reference		
Medium	1.08	1.02, 1.14	0.01
Large	1.13	1.07, 1.18	< 0.01
Admission Type	OR	95% CI	p-value
Emergency	1.48	1.37, 1.59	<0.01
Urgent	1.30	1.23, 1.37	<0.01
Elective	Reference		
Newborn	0.08	0.07, 0.1	<0.01
Delivery	22.95	14.85, 35.45	<0.01
Other	2.18	1.39, 3.40	<0.01
Admission Source	OR	95% CI	p-value
Emergency Department	2.62	2.44, 2.82	<0.01
Another Hospital	2.17	1.99, 2.37	<0.01
Other Health Facility	1.95	1.81, 2.12	<0.01
Court/Law Enforcement	1.24	0.90, 1.69	0.19
Routine	Reference		

Note: In multivariate logistic regression adjusting for patient (race, payer status, comorbidities, age, gender, patient refined DRG severity) and hospital (region, location, teaching status, bed size, admission type and source) factors, the probability of incurring at least one HAC was shown to be approximately 20% higher in weekend admits when compared to weekday admits.