

Supplementary Table 3. All ORs with 95% CIs in multivariate Model 1

Variable	OR (95% CI)	<i>P</i> -value
Age, year	1.01 (1.01, 1.01)	<0.001
Sex, male	0.94 (0.90, 0.97)	0.001
Having a job	0.95 (0.91, 0.99)	0.017
Residence at surgery		
Urban area	1	
Rural area	1.01 (0.97, 1.05)	0.705
Household income level		
Q1 (lowest)	1	
Q2	0.99 (0.93, 1.05)	0.692
Q3	1.03 (0.97, 1.09)	0.343
Q4 (highest)	0.96 (0.91, 1.02)	0.181
Medical aid program group	1.19 (1.09, 1.29)	<0.001
Unknown	1.13 (0.96, 1.33)	0.129
CCI	1.03 (1.02, 1.04)	<0.001
Myocardial infarction	1.24 (1.04, 1.47)	0.017
Congestive heart failure	1.29 (1.15, 1.46)	<0.001
Peripheral vascular disease	1.23 (0.98, 1.55)	0.081
Cerebrovascular disease	1.50 (1.33, 1.68)	<0.001
Dementia	1.28 (1.13, 1.45)	<0.001
Chronic pulmonary disease	1.45 (1.30, 1.63)	<0.001
Rheumatic disease	1.58 (1.28, 1.96)	<0.001
Peptic ulcer disease	1.17 (1.04, 1.33)	0.012
Mild liver disease	1.76 (1.57, 1.98)	<0.001
DM without chronic complication	1.20 (1.07, 1.34)	0.002
DM with chronic complication	1.68 (1.31, 2.14)	<0.001

Hemiplegia or paraplegia	1.95 (1.59, 2.40)	<0.001
Renal disease	0.93 (0.73, 1.18)	0.555
Cancer	1.38 (1.11, 1.72)	0.004
Moderate and severe liver disease	1.28 (0.87, 1.88)	0.208
Metastatic cancer	0.98 (0.53, 1.85)	0.982
AIDS/HIV	1.60 (1.05, 2.46)	0.031
Underlying disability		
Mild to moderate disability	0.96 (0.90, 1.02)	0.129
Severe disability	1.15 (1.10, 1.22)	<0.001
Emergency surgery	1.26 (1.19, 1.34)	<0.001
Annual case volume of cranial neurosurgery		
Q1<114	1	
114≤ Q2< 218	0.86 (0.82, 0.90)	<0.001
218 ≤ Q3<330	0.86 (0.82, 0.91)	<0.001
Q4≥330	0.48 (0.45, 0.53)	<0.001
Type of neurosurgery		
Brain tumor surgery	1	
Decompressive craniotomy or craniectomy	32.24 (28.67, 36.26)	<0.001
Hematoma evacuation	23.42 (20.91, 26.22)	<0.001
Cranioplasty or synostosis	0.74 (0.47, 1.18)	0.204
Skull base surgery	0.47 (0.25, 0.89)	0.019
Surgery for AVM	4.52 (3.09, 6.61)	<0.001
Surgery for brain abscess	2.88 (1.86, 4.45)	<0.001
Burr hole	10.34 (9.25, 11.56)	<0.001
Other type of brain surgery	0.55 (0.31, 0.95)	0.033
Year of surgery		
2016	1	

2017	0.98 (0.91, 1.07)	0.697
2018	0.88 (0.81, 0.95)	0.002
2019	0.78 (0.71, 0.85)	<0.001
2020	0.82 (0.75, 0.89)	<0.001
2021	0.81 (0.75, 0.89)	<0.001

OR, odds ratio; CI, confidence interval; CCI, Charlson comorbidity index; DM, diabetes mellitus; AIDS, acquired immunodeficiency syndrome; HIV, human immunodeficiency virus, AVM, arteriovenous malformation