

Supplementary Table 4. Logistic regressions assessing factors associated with postoperative paresis and surgical site infections

Characteristic	Paralysis or paresis			Surgical site infection		
	OR	95% CI	p-value	OR	95% CI	p-value
Age at surgery	1.011	0.999 to 1.022	0.066	0.986	0.971–1.000	0.054
Sex	0.707	0.537 to 0.932	0.014			
Male (reference)						
Female	0.707	0.537 to 0.932	0.014	0.933	0.655–1.328	0.699
Year of admission	0.944	0.893 to 0.998	0.042	0.866	0.804–0.933	<0.001
Region						
Northeast (reference)						
North Central	1.310	0.848 to 2.024	0.223	1.126	0.650–1.950	0.671
South	1.166	0.778 to 1.746	0.457	0.995	0.591–1.675	0.985
West	1.236	0.777 to 1.967	0.371	0.863	0.460–1.620	0.647
Unknown	1.969	0.877 to 4.422	0.101	2.226	0.896–5.529	0.085
Plan type						
Comprehensive (reference)						
EPO	0.977	0.254 to 3.766	0.973	0.235	0.028–1.943	0.179
HMO	1.312	0.666 to 2.585	0.433	0.686	0.326–1.443	0.321
POS	0.762	0.338 to 1.718	0.513	0.285	0.108–0.756	0.012
PPO	1.257	0.701 to 2.255	0.442	0.444	0.236–0.836	0.012
POS with capitation	1.603	0.386 to 6.666	0.516	-	-	-
CDHP	1.170	0.481 to 2.847	0.730	0.282	0.076–1.041	0.057
HDHP	1.937	0.772 to 4.862	0.159	0.840	0.298–2.365	0.741
Tumor classification						
Meningioma (reference)						
Spinal cord tumor	1.658	1.128 to 2.437	0.010	0.901	0.594–1.368	0.625
Metastasis	2.297	1.203 to 4.388	0.012	0.488	0.168–1.423	0.189
Other	2.236	1.061 to 4.710	0.034	0.859	0.303–2.436	0.775
Tumor grade						
Benign (reference)						
Malignant	1.618	1.114 to 2.351	0.012	1.621	0.980–2.682	0.060
Unknown	0.959	0.661 to 1.391	0.825	1.064	0.662–1.709	0.798
Location						
Lumbar (reference)						
Cervical	2.765	1.825 to 4.192	<0.001	1.279	0.813–2.011	0.286
Sacral	0.894	0.050 to 15.892	0.939	0.437	0.024–7.825	0.574
Thoracic	3.557	2.414 to 5.240	<0.001	1.080	0.705–1.655	0.722
Compartment						
Extramedullary (reference)						
Intramedullary	2.721	2.006 to 3.691	<0.001	1.136	0.738–1.748	0.563
Intradural, NOS	1.415	0.182 to 11.024	0.740	1.854	0.236–14.549	0.557

(continued)

Supplementary Table 4. Logistic regressions assessing factors associated with postoperative paresis and surgical site infections (continued)

Characteristic	Paralysis or paresis			Surgical site infection		
	OR	95% CI	p-value	OR	95% CI	p-value
Surgical approach						
Posterior (reference)						
Anterior	1.760	0.160 to 19.342	0.644	-	-	-
Combined	-	-	-	-	-	-
Arthrodesis	1.085	0.675 to 1.744	0.737	1.597	0.947–2.693	0.079
Operating microscope used	0.911	0.687 to 1.207	0.515	0.760	0.533–1.085	0.131
Intraoperative neuromonitoring	1.189	0.901 to 1.568	0.222	1.388	0.971–1.986	0.072
Comorbidities						
Congestive heart failure	0.801	0.376 to 1.706	0.565	2.219	0.951–5.179	0.065
Cardiac arrhythmia	0.952	0.638 to 1.421	0.809	0.334	0.159–0.700	0.004
Valvular disease	0.818	0.480 to 1.394	0.461	1.112	0.572–2.163	0.754
Pulmonary circulation disorders	1.546	0.657 to 3.642	0.319	0.791	0.174–3.591	0.761
Peripheral vascular disorders	0.754	0.437 to 1.303	0.312	1.137	0.580–2.229	0.708
Hypertension uncomplicated	0.646	0.464 to 0.897	0.009	1.274	0.844–1.923	0.249
Hypertension complicated	1.986	1.084 to 3.638	0.026	0.877	0.350–2.202	0.781
Paralysis	-	-	-	1.002	0.482–2.082	0.996
Other neurological disorders	1.565	1.028 to 2.382	0.037	1.075	0.578–2.001	0.819
Chronic pulmonary disease	1.136	0.781 to 1.652	0.505	1.047	0.646–1.698	0.852
Diabetes uncomplicated	1.239	0.806 to 1.907	0.329	1.024	0.576–1.821	0.935
Diabetes complicated	2.113	1.125 to 3.968	0.020	1.905	0.835–4.347	0.126
Hypothyroidism	1.006	0.678 to 1.491	0.977	0.900	0.526–1.538	0.699
Renal failure	0.718	0.311 to 1.656	0.437	0.950	0.326–2.766	0.925
Liver disease	1.139	0.708 to 1.832	0.593	0.750	0.352–1.597	0.455
Peptic ulcer disease excluding bleeding	3.062	1.112 to 8.426	0.030	0.746	0.096–5.818	0.779
AIDS/HIV	4.367	0.498 to 38.290	0.183	8.101	0.786–83.57	0.079
Rheumatoid arthritis/collagen	1.084	0.648 to 1.813	0.759	0.808	0.382–1.713	0.579
Coagulopathy	1.706	0.892 to 3.263	0.106	1.194	0.444–3.212	0.726
Obesity	0.867	0.525 to 1.432	0.578	1.525	0.867–2.681	0.143
Weight loss	1.469	0.730 to 2.955	0.281	0.411	0.096–1.763	0.232
Fluid and electrolyte disorders	1.046	0.643 to 1.701	0.857	2.166	1.240–3.783	0.007
Blood loss anemia	1.260	0.401 to 3.959	0.693	0.965	0.117–7.947	0.974
Deficiency anemia	1.571	0.907 to 2.721	0.107	0.341	0.103–1.131	0.079
Alcohol abuse	0.167	0.021 to 1.327	0.091	2.020	0.564–7.235	0.280
Drug abuse	2.455	0.930 to 6.484	0.070	-	-	-
Psychoses	0.631	0.167 to 2.387	0.498	0.842	0.178–3.985	0.828
Depression	1.191	0.806 to 1.759	0.381	1.405	0.880–2.245	0.155

OR, odds ratio; CI, confidence interval; EPO, exclusive provider organization; HMO, health maintenance organization; POS, point-of-service; PPO, preferred provider organization; CDHP, consumer driven health plan; HDHP, high deductible health plan; NOS, not otherwise specified; AIDS/HIV, acquired immune deficiency syndrome/human immunodeficiency.