

Covariable	Univariable		Multivariable	
	Incidence Rate Ratio (99% CI)	p-value	Incidence Rate Ratio (99% CI)	p-value
Antidepressant use	1.19 (1.13-1.26)	<0.001	1.04 (1.0-1.08)	0.006
Antianxiety use	1.01 (0.96-1.07)	0.57	1.11 (1.06-1.14)	<0.001
Expected LOS	1.41 (1.36-1.46)	<0.001	1.084 (1.082-1.087)	<0.001
Age	1.008 (1.007-1.009)	<0.001	0.997 (0.996-0.998)	<0.001
Sex (male)	1.20 (1.16-1.24)	<0.001	1.07 (1.04-1.11)	<0.001
BMI	0.957 (0.950-0.965)	<0.001	1.003 (0.998-1.008)	0.18
BMI'	1.04 (1.03-1.05)	<0.001	1.000 (0.993-1.006)	0.86
Hemoglobin	0.70 (0.69-0.72)	<0.001	0.93 (0.91-0.94)	<0.001
Hemoglobin'	1.13 (1.11-1.15)	<0.001	0.98 (0.97-1.00)	0.02
CHF	3.22 (3.00-3.45)	<0.001	1.17 (1.10-1.24)	<0.001
Atrial Fibrillation	2.11 (1.98-2.25)	<0.001	1.15 (1.09-1.22)	<0.001
COPD	1.59 (1.48-1.70)	<0.001	1.01 (0.95-1.06)	0.78
Dementia	2.71 (2.49-2.94)	<0.001	1.24 (1.16-1.33)	<0.001
Diabetes Mellitus	1.41 (1.35-1.48)	<0.001	0.94 (0.91-0.98)	<0.001
HIV	1.24 (1.05-1.47)	<0.001	0.98 (0.86-1.11)	0.64
Hypertension	1.09 (1.05-1.12)	<0.001	0.98 (0.95-1.02)	0.21
Liver Disease	2.02 (1.85-2.20)	<0.001	1.01 (0.95-1.02)	0.63
Coronary Artery Disease	1.70 (1.62-1.79)	<0.001	0.99 (0.95-1.03)	0.51
Cancer	1.28 (1.23-1.33)	<0.001	1.93 (0.99-1.07)	0.04
Alcohol Abuse	1.63 (1.40-1.89)	<0.001	0.99 (0.89-1.11)	0.87
Peripheral Vascular Disease	1.95 (1.82-2.09)	<0.001	1.03 (0.97-1.10)	0.22
Chronic Kidney Disease	2.46 (2.32-2.61)	<0.001	1.06 (1.01-1.12)	0.004
Hypothyroidism	1.31 (1.24-1.38)	<0.001	1.04 (0.99-1.09)	0.01
ASA class				
I		Ref		Ref
II	1.42 (1.33-1.52)	<0.001	1.21 (1.13-1.30)	<0.001
III	3.03 (2.83-3.24)	<0.001	1.52 (1.41-1.64)	<0.01
IV	8.12 (7.48-8.81)	<0.001	1.88 (1.71-2.06)	<0.001
V	10.2 (7.20-14.4)	<0.001	2.01 (1.48-2.72)	<0.001
Service				
Anesthesiology		Ref		Ref
Gastroenterology	1.17 (0.50-2.74)	0.64	0.85 (0.43-1.68)	0.54
Bariatrics	0.27 (0.11-0.63)	<0.001	0.56 (0.28-1.02)	0.03
Endocrine Surgery	0.12 (0.05-0.30)	<0.001	0.46 (0.21-1.02)	0.01
Oral Surgery	0.86 (0.36-2.05)	0.65	0.70 (0.35-1.43)	0.20
Pediatric Surgery	1.10 (0.45-2.73)	0.77	1.34 (0.64-2.79)	0.30
Robotic Surgery	0.46 (0.19-1.16)	0.03	0.81 (0.40-1.65)	0.45
Surgical Oncology	0.11 (0.05-0.26)	<0.001	0.33 (0.16-0.68)	<0.001
Transplant	1.19 (0.50-2.84)	0.60	0.77 (0.38-1.55)	0.34
Wound Care	2.27 (0.96-5.39)	0.01	1.48 (0.74-2.98)	0.15
Surgery				
General	0.93 (0.40-2.18)	0.82	1.01 (0.51-2.00)	0.98
Gynecologic	0.48 (0.20-1.13)	0.03	0.80 (0.40-1.62)	0.42
Oncology				
Gynecologic	0.17 (0.07-0.41)	<0.001	0.43 (0.20-0.91)	0.004
Robotic Surgery				
Gynecology	0.28 (0.12-0.65)	<0.001	0.68 (0.34-1.36)	0.15
Movement	0.14 (0.06-0.33)	<0.001	0.21 (0.10-0.44)	<0.001
Disorder				
Craniotomy	0.76 (0.33-1.79)	0.42	1.06 (0.53-2.09)	0.83
Pediatric	1.04 (0.44-2.44)	0.92	0.66 (0.33-1.31)	0.12

Neurosurgery				
Spine	0.45 (0.19-1.06)	0.16	0.85 (0.43-1.68)	0.53
Obstetrics	0.38 (0.16-0.89)	0.003	1.00 (0.50-1.99)	0.99
Ophthalmology	1.28 (0.47-3.45)	0.53	0.84 (0.32-2.18)	0.63
Foot	0.58 (0.25-1.39)	0.11	0.76 (0.38-1.53)	0.31
Hand	0.34 (0.14-0.83)	0.002	0.80 (0.38-1.70)	0.45
Pediatric	0.42 (0.17-0.99)	0.01	0.79 (0.39-1.61)	0.39
Orthopedic				
Shoulder/Elbow	0.29 (0.07-1.14)	0.02	0.79 (0.28-2.25)	0.57
Orthopedic Spine	0.37 (0.16-0.88)	0.003	0.85 (0.43-1.68)	0.53
Sports	0.34 (0.14-0.80)	0.001	0.71 (0.35-1.41)	0.20
Orthopedic Tumor	1.57 (0.64-3.84)	0.20	0.84 (0.39-1.83)	0.57
Total Joint	0.37 (0.16-0.87)	0.003	0.78 (0.40-1.56)	0.36
Trauma/Fracture	0.64 (0.27-1.51)	0.18	0.83 (0.42-1.66)	0.50
Head and Neck	0.69 (0.28-1.73)	0.30	1.06 (0.51-2.21)	0.84
Otolaryngology	1.91 (0.81-4.51)	0.05	1.37 (0.61-2.82)	0.24
Pediatric Oncology	1.47 (0.54-3.97)	0.33	1.31 (0.61-2.82)	0.37
Cosmetic	1.40 (0.58-3.36)	0.33	1.40 (0.69-2.83)	0.22
Craniofacial	0.16 (0.06-0.40)	<0.001	0.61 (0.27-1.38)	0.12
Reconstructive	1.01 (0.43-2.38)	0.97	1.05 (0.53-2.09)	0.86
Plastic				
Pulmonary	1.97 (0.83-4.68)	0.04	0.84 (0.41-1.68)	0.51
Thoracic	0.91 (0.39-2.14)	0.78	0.80 (0.40-1.59)	0.41
Robotic Thoracic	0.30 (0.13-0.72)	<0.001	0.55 (0.27-1.11)	0.03
Robotic Urology	0.13 (0.05-0.30)	<0.001	0.37 (0.18-0.73)	<0.001
Urology	0.43 (0.18-1.00)	0.01	0.62 (0.31-1.23)	0.07
Vascular	0.83 (0.35-1.95)	0.58	0.66 (0.33-1.31)	0.12
Elective Surgery		Ref		Ref
Emergency Surgery	3.81 (0.35-41)	0.15	1.29 (1.24-1.35)	<0.001
Urgent Surgery	4.87 (0.45-53)	0.09	1.60 (1.51-1.68)	<0.001

Supplemental Table 1. Multivariable zero-truncated negative binomial analysis of length of stay outcome (primary analysis). ASA class: American Society of Anesthesiologists Physical Status Score; COPD: Chronic obstructive pulmonary disease; HIV: Human immunodeficiency virus; CHF: congestive heart failure; BMI: body mass index

	Before Matching			After Matching		
	No antidepressant (n=43324)	On antidepressant (n=5111)	Standardized difference	No antidepressant (n=3962)	On antidepressant (n=3962)	Standardized difference
Age	57.8 (17.8)	61.1 (15.8)	0.25	61 (17)	61 (16)	-0.0029
Sex (female)	24475 (56.4)	3138 (61.4)	0.067	2419 (61)	2409 (61)	-0.0052
BMI	28.6 (7.0)	28.9 (7.4)	0.046	28.8 (7.4)	28.9 (7.4)	0.0068
Hemoglobin	11.9 (2.0)	11.6 (2.0)	-0.15	11.6 (2.0)	11.6 (2.0)	0.0006
CHF	2258 (5.2)	351 (6.9)	0.06	261 (6.6)	262 (6.6)	0.001
Atrial Fibrillation	2802 (6.5)	424 (8.3)	0.072	291 (7.3)	315 (8.0)	0.022
COPD	2487 (5.7)	462 (9.0)	0.127	350 (8.8)	365 (9.2)	0.013
Dementia	1648 (3.8)	322 (6.3)	0.119	243 (6.1)	251 (6.3)	0.0083
Diabetes Mellitus	7102 (16.4)	1017 (20.0)	0.094	808 (20)	798 (20)	-0.0063
HIV	430 (1.0)	75 (1.5)	0.053	66 (1.7)	64 (1.6)	-0.004
Hypertension	16729 (38.6)	2225 (45.3)	0.14	1737 (44)	1744 (44)	0.0036
Liver Disease	1616 (3.7)	281 (5.5)	0.079	230 (5.8)	230 (5.8)	0
Coronary Artery Disease	5529 (12.8)	792 (15.5)	0.07	614 (16)	591 (15)	-0.016
Cancer	11075 (25.6)	1214 (23.8)	-0.04	898 (23)	910 (23)	0.0072
Alcohol Abuse	537 (1.2)	85 (1.7)	0.044	67 (1.7)	76 (1.9)	0.0166
Peripheral Vascular Disease	2497 (6.8)	360 (7.0)	0.053	293 (7.4)	278 (7.0)	-0.015
Chronic Kidney Disease	3322 (7.7)	494 (9.7)	0.045	392 (9.9)	378 (9.5)	-0.012
Hypothyroidism	4773 (11.0)	855 (16.7)	0.16	662 (17)	663 (17)	0.00066
ASA class						
I	2632 (6.1)	84 (1.6)	0.013	71 (1.8)	68 (1.7)	-0.015
II	21147 (48.8)	2092 (40.9)	-0.19	1667 (42)	1654 (42)	-0.0067
III	15523 (35.8)	2318 (45.3)	0.21	1717 (43)	1743 (44)	0.013
IV	2802 (6.5)	439 (8.6)	0.099	332 (8.4)	334 (8.4)	0.0018
V	68 (0.2)	3 (0.06)	-0.041	2 (0.05)	2 (0.05)	0
Service						
Anesthesiology	9 (0.02)	3 (0.06)	0.013	0 (0)	2 (0.05)	0.022
Gastroenterology	3429 (7.9)	458 (9.4)	0.063	384 (9.7)	366 (9.2)	-0.016
Bariatrics	1324 (3.0)	215 (4.4)	0.052	162 (4.1)	160 (4.0)	-0.0026
Endocrine Surgery	157 (0.36)	22 (0.45)	-0.003	8 (0.20)	7 (0.18)	-0.006
Oral Surgery	207 (0.47)	12 (0.25)	-0.057	5 (0.13)	9 (0.23)	0.021
Pediatric Surgery	95 (0.22)	3 (0.06)	-0.12	1 (0.03)	1 (0.03)	0
Robotic Surgery	121 (0.28)	17 (0.35)	-0.004	18 (0.45)	17 (0.43)	-0.0039
Surgical Oncology	662 (1.5)	52 (1.1)	0.008	27 (0.68)	40 (1.0)	0.033
Transplant	285 (0.65)	19 (0.39)	-0.028	12 (0.30)	19 (0.48)	0.026
Wound Care Surgery	397 (0.91)	42 (0.87)	0.024	26 (0.66)	29 (0.73)	0.0089
General	3082 (7.1)	339 (7.0)	-0.0001	265 (6.7)	284 (7.2)	0.019
Gynecologic Oncology	484 (1.1)	34 (0.70)	-0.017	21 (0.53)	26 (0.66)	0.016
Gynecologic Robotic Surgery	161 (0.37)	18 (0.37)	0.018	20 (0.50)	16 (0.40)	-0.016
Gynecology	1072 (2.5)	44 (0.91)	-0.14	13 (0.32)	32 (0.81)	0.054
Movement Disorder	181 (0.41)	67 (1.4)	0.083	39 (0.98)	59 (1.5)	0.042
Craniotomy	2555 (5.9)	266 (5.5)	-0.0024	237 (6.0)	236 (6.0)	-0.0011
Pediatric Neurosurgery	766 (1.8)	129 (2.7)	0.052	87 (2.2)	91 (2.3)	0.0067
Spine	1836 (4.2)	298 (6.1)	0.077	255 (6.4)	231 (5.8)	-0.026
Obstetrics	2474 (5.7)	49 (1.0)	-0.085	49 (1.2)	48 (1.2)	-0.0023

Ophthalmology	31 (0.07)	1 (0.02)	-0.006	3 (0.08)	1 (0.03)	-0.032
Foot	349 (0.80)	57 (1.2)	0.027	28 (0.71)	36 (0.91)	0.021
Hand	110 (0.25)	14 (0.29)	0.015	14 (0.35)	11 (0.28)	-0.014
Pediatric Orthopedic	240 (0.55)	6 (0.12)	-0.12	6 (0.15)	5 (0.13)	-0.0071
Shoulder/Elbow	7 (0.02)	2 (0.04)	0.025	4 (0.10)	3 (0.08)	-0.0092
Orthopedic Spine	4158 (9.5)	509 (10.5)	0.0092	508 (13)	475 (12)	-0.026
Sports	1046 (2.4)	94 (1.9)	0.0092	90 (2.3)	83 (2.1)	-0.012
Orthopedic Tumor	100 (0.23)	7 (0.14)	0.0087	6 (0.15)	6 (0.15)	0
Total Joint	8897 (20)	985 (20)	0.0042	798 (20)	825 (21)	0.017
Trauma/Fracture	1087 (2.5)	134 (2.8)	0.043	108 (2.8)	103 (2.6)	-0.0079
Head and Neck	71 (0.15)	7 (0.14)	0.011	8 (0.20)	9 (0.23)	0.0053
Otolaryngology	442 (1.0)	64 (1.3)	0.037	52 (1.3)	49 (1.3)	-0.0069
Pediatric Oncology	26 (0.06)	5 (0.10)	0.0073	4 (0.10)	5 (0.13)	0.0071
Cosmetic	174 (0.40)	11 (0.23)	-0.051	7 (0.18)	9 (0.23)	0.011
Craniofacial	110 (0.25)	5 (0.10)	-0.022	5 (0.13)	3 (0.08)	-0.018
Reconstructive Plastic	873 (2.0)	126 (2.6)	0.061	136 (3.4)	121 (3.0)	-0.022
Pulmonary	338 (0.78)	37 (0.76)	-0.016	17 (0.42)	16 (0.40)	-0.004
Thoracic	1771 (4.1)	192 (4.0)	0.0017	176 (4.4)	159 (4.0)	-0.022
Robotic Thoracic	230 (0.53)	28 (0.58)	-0.012	26 (0.66)	23 (0.58)	-0.01
Robotic Urology	1109 (2.5)	104 (2.1)	-0.062	78 (2.0)	71 (1.8)	-0.013
Urology	1157 (2.7)	145 (3.0)	-0.004	87 (2.2)	92 (2.3)	0.0084
Vascular	1964 (4.5)	227 (4.7)	0.024	171 (4.3)	183 (4.6)	0.014
Elective Surgery	32947 (76)	3498 (72)	-0.12	2779	2793	0.0078
Emergency Surgery	7902 (18)	935 (19)	0.078	827	810	-0.01
Urgent Surgery	2736 (6.3)	414 (8.5)	0.084	355	358	0.0026

Supplemental Table 2. Standardized mean differences of each covariate before and after propensity score matching for preoperative antidepressant medication use. ASA class: American Society of Anesthesiologists Physical Status Score; COPD: Chronic obstructive pulmonary disease; HIV: Human immunodeficiency virus; CHF: congestive heart failure; BMI: body mass index

Covariable	Univariable		Multivariable	
	Odds Ratio (95% CI)	p-value	Odds Ratio (95% CI)	p-value
Age	1.013 (1.011-1.015)	<0.001	1.00 (0.997-1.002)	0.82
Sex (male)	0.87 (0.82-0.94)	<0.001	0.70 (0.65-0.75)	<0.001
BMI	1.007 (1.002-1.011)	0.005	1.00 (0.99-1.01)	0.10
Hemoglobin	0.92 (0.91-0.94)	<0.001	0.97 (0.95-0.99)	0.006
CHF	1.31 (1.14-1.51)	<0.001	0.91 (0.77-1.07)	0.26
Atrial Fibrillation	1.36 (1.19-1.54)	<0.001	1.06 (0.92-1.22)	0.44
COPD	1.73 (1.53-1.95)	<0.001	1.46 (1.28-1.66)	<0.001
Dementia	1.90 (1.64-2.19)	<0.001	1.52 (1.29-1.80)	<0.001
Diabetes Mellitus	1.29 (1.18-1.40)	<0.001	0.99 (0.90-1.09)	0.90
HIV	1.71 (1.28-2.25)	<0.001	1.68 (1.24-2.23)	<0.001
Hypertension	1.34 (1.25-1.43)	<0.001	0.99 (0.91-1.08)	0.82
Liver Disease	1.50 (1.29-1.74)	<0.001	1.23 (1.04-1.44)	0.01
Coronary Artery Disease	1.23 (1.12-1.36)	<0.001	0.92 (0.83-1.04)	0.21
Cancer	0.91 (0.84-0.99)	0.02	0.86 (0.78-0.95)	0.004
Alcohol Abuse	1.47 (1.13-1.88)	0.003	1.29 (0.99-1.68)	0.06
Peripheral Vascular Disease	1.26 (1.10-1.43)	<0.001	1.02 (0.87-1.20)	0.77
Chronic Kidney Disease	1.18 (1.05-1.32)	0.005	0.90 (0.78-1.04)	0.16
Hypothyroidism	1.65 (1.51-1.82)	<0.001	1.37 (1.25-1.51)	<0.001
ASA class				
I	Ref		Ref	
II	2.73 (2.15-3.54)	<0.001	2.54 (1.99-3.31)	<0.001
III	4.39 (3.45-5.89)	<0.001	3.49 (2.70-4.63)	<0.001
IV	4.96 (3.80-6.56)	<0.001	4.21 (3.14-5.71)	<0.001
V	1.18 (0.19-3.98)	0.83	1.04 (0.16-3.56)	0.96
Service				
Anesthesiology	Ref		Ref	
Gastroenterology	0.54 (0.12-3.78)	0.46	4.62 (0.10-3.27)	0.36
Bariatrics	0.58 (0.12-4.06)	0.51	0.54 (0.11-3.85)	0.47
Endocrine Surgery	0.46 (0.08-3.65)	0.41	0.56 (0.09-4.46)	0.53
Oral Surgery	0.20 (0.04-1.51)	0.07	0.23 (0.04-1.79)	0.11
Pediatric Surgery	0.48 (0.002-0.58)	0.02	0.62 (0.003-0.77)	0.04
Robotic Surgery	0.41 (0.08-3.01)	0.31	0.51 (0.10-3.81)	0.45
Surgical Oncology	0.47 (0.10-3.34)	0.37	0.61 (0.12-4.41)	0.57
Transplant	0.31 (0.06-2.24)	0.17	0.27 (0.05-2.00)	0.14
Wound Care Surgery	0.59 (0.12-4.29)	0.55	0.54 (0.11-3.93)	0.48
General	0.43 (0.09-3.02)	0.32	0.47 (0.10-3.34)	0.38
Gynecologic Oncology	0.36 (0.07-2.58)	0.23	4.05 (0.08-2.96)	0.30
Gynecologic Robotic	0.60 (0.12-4.42)	0.56	0.69 (0.13-5.18)	0.68
Surgery				
Gynecology	0.17 (0.04-1.23)	0.04	0.20 (0.04-1.47)	0.07
Movement Disorder	1.3 (0.28-9.45)	0.74	1.57 (0.32-11.33)	0.60
Craniotomy	0.43 (0.09-3.00)	0.31	0.44 (0.09-3.11)	0.33
Pediatric Neurosurgery	0.65 (0.14-4.62)	0.61	0.54 (0.11-3.84)	0.47
Spine	0.63 (0.13-4.39)	0.58	0.67 (0.11-5.53)	0.69
Obstetrics	0.50 (0.01-0.35)	<0.001	0.05 (0.01-0.40)	<0.001
Ophthalmology	0.31 (0.01-4.12)	0.39	0.29 (0.01-3.88)	0.36
Foot	0.60 (0.12-4.34)	0.56	0.61 (0.12-4.44)	0.57
Hand	0.60 (0.11-4.55)	0.57	0.73 (0.13-5.65)	0.73
Pediatric Orthopedic	0.10 (0.02-0.81)	0.02	0.12 (0.02-1.02)	0.03
Shoulder/Elbow	2.0 (0.26-19.8)	0.52	02.67 (0.33-26.8)	0.36
Orthopedic Spine	0.56 (0.12-3.93)	0.49	0.67 (0.13-4.76)	0.64
Sports	4.61 (0.10-3.25)	0.36	0.50 (0.10-3.56)	0.41
Orthopedic Tumor	0.56 (0.09-4.52)	0.54	0.67 (0.11-5.53)	0.68

Total Joint	0.44 (0.09-3.04)	0.32	0.47 (0.10-3.33)	0.37
Trauma/Fracture	0.59 (0.12-4.14)	0.53	0.55 (0.11-3.92)	0.48
Head and Neck	0.56 (0.10-4.36)	0.53	0.66 (0.12-5.16)	0.65
Otolaryngology	0.65 (0.14-4.62)	0.61	0.59 (0.12-4.27)	0.54
Pediatric Oncology	0.54 (0.08-4.54)	0.53	0.68 (0.11-5.80)	0.70
Cosmetic	0.21 (0.04-1.59)	0.08	0.24 (0.04-1.84)	0.12
Craniofacial	0.24 (0.03-2.17)	0.17	0.31 (0.04-2.82)	0.26
Reconstructive Plastic	0.66 (0.14-4.62)	0.62	0.68 (0.14-4.85)	0.65
Pulmonary	0.34 (0.07-2.55)	0.23	0.26 (0.05-1.96)	0.13
Thoracic	0.43 (0.09-3.05)	0.32	0.38 (0.08-2.73)	0.26
Robotic Thoracic	0.37(0.07-2.69)	0.25	0.38 (0.07-2.75)	0.26
Robotic Urology	0.30 (0.06-2.09)	0.15	0.42 (0.09-2.98)	0.31
Urology	0.42 (0.09-2.97)	0.31	0.48 (0.10-3.45)	0.38
Vascular	0.49 (0.10-3.41)	0.39	0.43 (0.09-3.03)	0.32
Elective Surgery	Ref		Ref	
Emergency Surgery	1.28 (1.17-1.39)	<0.001	1.06 (0.95-1.19)	0.32
Urgent Surgery	1.47 (1.30-1.66)	<0.001	1.15 (1.00-1.32)	0.05

Supplemental Table 3. Univariable and multivariable logistic regression models for preoperative antidepressant medication use, used to derive propensity scores. ASA class: American Society of Anesthesiologists Physical Status Score; COPD: Chronic obstructive pulmonary disease; HIV: Human immunodeficiency virus; CHF: congestive heart failure; BMI: body mass index

	Before Matching			After Matching		
	No antianxiety (n=43540)	On Antianxiety (n=4895)	Standardized difference	No antianxiety (n=3929)	On antianxiety (n=3929)	Standardized difference
Age (years)	58.1 (17.8)	57.8 (16.2)	0.015	57.7 (17.5)	57.5 (17.6)	-0.016
Sex (male)	19025 (43.7)	1797 (36.7)	0.143	2462 (63)	2481 (63)	0.01
BMI (kg/m2)	28.7 (7.0)	28.1 (7.0)	-0.096	28.1 (7.0)	28.1 (7.1)	0.0052
Hemoglobin (mg/dl)	11.9 (2.0)	11.9 (2.0)	0.0091	11.9 (2.0)	11.9 (2.0)	0.009
CHF	2402 (5.5)	207 (4.2)	-0.087	148 (3.8)	159 (4.0)	0.014
Atrial Fibrillation	2984 (6.8)	242 (4.9)	-0.1	205 (5.2)	186 (4.7)	-0.023
COPD	2579 (5.9)	370 (7.6)	0.061	312 (7.9)	291 (7.4)	-0.02
Dementia	1755 (4.0)	215 (4.4)	0.012	158 (4.0)	166 (4.2)	0.01
Diabetes Mellitus	7415 (17.0)	704 (14.4)	-0.091	60 (15)	582 (15)	-0.017
HIV	440 (1.0)	65 (1.3)	0.029	61 (1.5)	54 (1.4)	-0.015
Hypertension	17065 (39.1)	1889 (38.6)	0.023	1556 (40)	1533 (39)	-0.012
Liver Disease	1714 (3.9)	183 (3.7)	-0.011	159 (4.0)	164 (4.2)	0.0064
Coronary Artery Disease	5740 (13.1)	581 (11.9)	-0.05	472 (12)	457 (12)	-0.012
Cancer	10885 (25.0)	1404 (28.9)	0.109	1078 (27)	1102 (28)	0.014
Alcohol Abuse	543 (1.2)	79 (1.6)	0.028	77 (2.0)	69 (1.8)	-0.015
Peripheral Vascular Disease	2616 (6.0)	241 (4.9)	-0.073	182 (4.6)	186 (4.7)	0.0048
Chronic Kidney Disease	3474 (8.0)	342 (7.0)	-0.073	282 (7.2)	279 (7.1)	-0.003
Hypothyroidism	4937 (11.3)	692 (14.1)	0.093	570 (14)	568 (14)	-0.0014
ASA class						
I	2539 (5.8)	177 (3.6)	-0.027	145 (3.7)	156 (4.0)	-0.018
II	20956 (48.0)	2283 (46.6)	-0.049	1796 (46)	1864 (47)	0.035
III	15851 (36.4)	1990 (40.7)	0.104	1609 (41)	1555 (39)	-0.028
IV	2950 (6.8)	291 (5.9)	-0.034	229 (5.8)	219 (5.6)	-0.011
V	67 (0.2)	4 (0.08)	-0.013	6 (0.15)	4 (0.10)	-0.016
Service						
Anesthesiology	10 (0.02)	2 (0.04)	-0.0014	0 (0)	1 (0.03)	0.016
Gastroenterology	3592 (8.3)	295 (6.0)	-0.098	259 (6.6)	238 (6.0)	-0.022
Bariatrics	1409 (3.2)	130 (2.7)	-0.068	88 (2.2)	95 (2.4)	0.012
Endocrine Surgery	164 (0.38)	15 (0.31)	0.0006	7 (0.18)	7 (0.18)	0
Oral Surgery	198 (0.45)	21 (0.43)	-0.0084	17 (0.43)	18 (0.44)	0.0038
Pediatric Surgery	86 (0.20)	12 (0.24)	0.016	11 (0.28)	11 (0.28)	0
Robotic Surgery	127 (0.29)	12 (0.24)	-0.035	15 (0.38)	12 (0.30)	-0.014
Surgical Oncology	534 (1.2)	180 (3.7)	0.18	93 (2.4)	108 (2.7)	0.023
Transplant	292 (0.67)	12 (0.24)	-0.087	8 (0.20)	11 (0.28)	0.014
Wound Care Surgery	406 (0.93)	33 (0.67)	0.003	24 (0.61)	24 (0.61)	0
General	3143 (7.2)	278 (5.7)	-0.082	219 (5.6)	231 (5.9)	0.013
Gynecologic Oncology	475 (1.1)	43 (0.88)	0.003	26 (0.66)	33 (0.84)	0.02
Gynecologic Robotic Surgery	164 (0.38)	15 (0.31)	-0.004	16 (0.41)	12 (0.31)	-0.018
Gynecology	1080 (2.5)	36 (0.73)	-0.21	19 (0.48)	22 (0.56)	0.01
Movement Disorder	188 (0.43)	60 (1.2)	0.064	65 (1.7)	52 (1.3)	-0.029
Craniotomy	2410 (5.5)	411 (8.4)	0.095	346 (8.8)	340 (8.6)	-0.0054
Pediatric Neurosurgery	787 (1.8)	108 (2.2)	0.008	67 (1.7)	71 (1.8)	0.0076
Spine	1421 (3.3)	713 (15)	0.37	490 (12)	502 (13)	0.0091
Obstetrics	2503 (5.7)	20 (0.41)	-0.146	20 (0.51)	20 (0.51)	0
Ophthalmology	29 (0.07)	3 (0.06)	0.017	3 (0.08)	3 (0.08)	0
Foot	387 (0.89)	19 (0.39)	-0.064	18 (0.46)	15 (0.38)	-0.012
Hand	119 (0.27)	5 (0.10)	-0.031	3 (0.08)	5 (0.13)	0.014
Pediatric Orthopedic	206 (0.47)	40 (0.82)	0.044	39 (1.0)	34 (0.86)	-0.013

Shoulder/Elbow	5 (0.01)	4 (0.08)	0.024	5 (0.13)	2 (0.05)	-0.034
Orthopedic Spine	4097 (9.4)	570 (12)	0.109	523 (13)	526 (13)	0.0022
Sports	1071 (2.5)	69 (1.4)	-0.042	65 (1.7)	64 (1.6)	-0.002
Orthopedic Tumor	93 (0.21)	14 (0.29)	0.037	17 (0.43)	12 (0.30)	-0.023
Total Joint	9122 (21)	760 (15)	-0.149	660 (17)	667 (17)	0.0047
Trauma/Fracture	1128 (0.21)	93 (0.29)	-0.047	74 (1.9)	63 (1.6)	-0.022
Head and Neck	71 (0.16)	5 (0.10)	-0.021	5 (0.13)	5 (0.13)	0
Otolaryngology	451 (1.0)	55 (1.1)	0.021	48 (1.2)	44 (1.1)	-0.0097
Pediatric Oncology	25 (0.06)	6 (0.12)	0.013	6 (0.15)	6 (0.15)	0
Cosmetic	146 (0.34)	39 (0.80)	0.06	38 (0.97)	36 (0.91)	-0.0053
Craniofacial	113 (0.26)	2 (0.04)	0	0 (0)	0 (0)	0
Reconstructive Plastic	811 (1.9)	188 (3.8)	0.115	180 (4.6)	169 (4.3)	-0.014
Pulmonary	351 (0.81)	24 (0.49)	-0.01	15 (0.38)	18 (0.46)	0.011
Thoracic	1749 (4.0)	214 (4.4)	0.021	189 (4.8)	180 (2.0)	-0.011
Robotic Thoracic	225 (0.52)	33 (0.67)	-0.0087	20 (0.51)	25 (0.64)	0.016
Robotic Urology	1126 (2.6)	87 (1.8)	-0.085	61 (1.5)	67 (1.7)	0.012
Urology	1177 (2.7)	125 (2.5)	-0.042	74 (1.9)	79 (2.0)	0.0091
Vascular	2038 (4.9)	153 (3.1)	-0.114	104 (2.6)	109 (2.8)	0.0077
Elective Surgery	32652 (75)	3793 (77)	0.069	3010 (76)	3030 (77)	0.012
Emergency Surgery	8048 (18)	790 (16)	-0.064	655 (17)	641 (16)	-0.0096
Urgent Surgery	2829 (6.5)	321 (6.5)	-0.023	272 (6.9)	262 (6.8)	-0.0061

Supplemental Table 4. Standardized mean differences of each covariate before and after propensity score matching for preoperative antianxiety medication use. ASA class: American Society of Anesthesiologists Physical Status Score; COPD: Chronic obstructive pulmonary disease; HIV: Human immunodeficiency virus; CHF: congestive heart failure; BMI: body mass index



Covariable	Univariable		Multivariable	
	Odds Ratio (95% CI)	p-value	Odds Ratio (95% CI)	p-value
Age	1.00 (0.999-1.002)	0.40	0.991 (0.988-0.993)	<0.001
Sex (male)	0.75 (0.70-0.81)	<0.001	0.59 (0.54-0.64)	<0.001
BMI	0.999 (0.981-0.991)	<0.001	0.992 (0.987-0.999)	0.015
Hemoglobin	1.00 (0.99-1.02)	0.85	1.00 (0.980-1.02)	0.97
CHF	0.69 (0.58-0.81)	<0.001	0.94 (0.77-1.14)	0.53
Atrial Fibrillation	0.67 (0.57-0.78)	<0.001	0.79 (0.66-0.94)	0.008
COPD	1.29 (1.14-1.47)	<0.001	1.37 (1.19-1.58)	<0.001
Dementia	1.06 (0.89-1.25)	0.50	1.06 (0.87-1.28)	0.55
Diabetes Mellitus	0.79 (0.72-0.86)	<0.001	0.78 (0.70-0.87)	<0.001
HIV	1.34 (0.98-1.78)	0.06	1.42 (1.02-1.94)	0.03
Hypertension	1.05 (0.98-1.13)	0.13	0.99 (0.91-1.08)	0.79
Liver Disease	0.96 (0.81-1.13)	0.61	1.03 (0.85-1.23)	0.79
Coronary Artery Disease	0.87 (0.78-0.96)	0.007	0.99 (0.87-1.12)	0.82
Cancer	1.29 (1.20-1.39)	<0.001	1.16 (1.05-1.29)	0.003
Alcohol Abuse	1.28 (0.98-1.64)	0.07	1.50 (1.12-1.97)	0.005
Peripheral Vascular Disease	0.74 (0.63-0.86)	<0.001	0.90 (0.74-1.08)	0.26
Chronic Kidney Disease	0.77 (0.67-0.87)	<0.001	1.04 (0.88-1.22)	0.65
Hypothyroidism	1.34 (1.21-1.47)	<0.001	1.25 (1.12-1.39)	<0.001
ASA class				
I		Ref		Ref
II	1.27 (1.08-1.51)	0.005	1.60 (1.33-1.94)	<0.001
III	1.54 (1.30-1.83)	<0.001	2.10 (1.72-2.57)	<0.001
IV	1.17 (0.94-1.45)	0.15	2.39 (1.85-3.10)	<0.001
V	0.95 (0.28-2.44)	0.92	1.76 (0.51-4.67)	0.30
Service				
Anesthesiology		Ref		Ref
Gastroenterology	0.78 (0.13-14.7)	0.82	0.79 (0.13-1.53)	0.83
Bariatrics	0.75 (0.13-14.3)	0.79	0.60 (0.94-11.7)	0.65
Endocrine Surgery	1.1 (0.15-22.5)	0.93	0.93 (0.12-19.3)	0.95
Oral Surgery	1.03 (0.16-20.0)	0.98	0.92 (0.14-18.3)	0.94
Pediatric Surgery	1.57 (2.33-31.3)	0.69	1.12 (0.16-22.9)	0.92
Robotic Surgery	0.66 (0.10-13.0)	0.71	0.56 (0.008-11.4)	0.62
Surgical Oncology	104 (1.74-198)	0.03	7.28 (1.14-142)	0.07
Transplant	0.40 (0.006-8.00)	0.42	0.34 (0.005-6.85)	0.34
Wound Care Surgery	1.14 (0.18-21.9)	0.91	1.17 (0.18-23.3)	0.89
General	0.82 (0.14-15.4)	0.85	0.77 (0.12-14.9)	0.81
Gynecologic Oncology	1.13 (0.18-21.7)	0.91	0.74 (0.11-14.5)	0.78
Gynecologic Robotic	1.01 (0.15-20.0)	0.99	0.70 (0.009-14.1)	0.75
Surgery				
Gynecology	0.28 (0.005-5.34)	0.24	0.17 (0.003-3.55)	0.13
Movement Disorder	2.64 (0.44-50.6)	0.37	2.43 (0.38-47.8)	0.43
Craniotomy	1.60 (0.27-30.2)	0.67	1.27 (0.21-24.6)	0.83
Pediatric Neurosurgery	1.16 (0.19-22.0)	0.89	0.86 (0.13-16.8)	0.89
Spine	7.85 (1.3-148)	0.06	7.97 (1.27-155)	0.06
Obstetrics	0.005 (0.008-0.95)	0.006	0.003 (0.0005-0.62)	0.002
Ophthalmology	3.00 (0.28-70.1)	0.39	2.97 (0.27-7.24)	0.41
Foot	0.53 (0.008-10.3)	0.57	0.60 (0.009-12.1)	0.66
Hand	0.58 (0.007-12.0)	0.64	0.62 (0.008-13.2)	0.69
Pediatric Orthopedic	2.13 (0.35-40.9)	0.49	1.4 (0.22-28.4)	0.75
Shoulder/Elbow	4.80 (0.49-117)	0.22	4.80 (0.47-115)	0.23
Orthopedic Spine	1.53 (0.26-29.5)	0.69	1.47 (0.23-28.6)	0.73
Sports	0.82 (0.14-15.6)	0.85	0.80 (126-15.7)	0.84
Orthopedic Tumor	3.43 (0.50-68.8)	0.28	2.60 (0.36-53.5)	0.41

Total Joint	0.82 (0.14-15.4)	0.85	0.80 (0.13-15.6)	0.84
Trauma/Fracture	0.79 (0.13-15.0)	0.83	0.80 (0.13-15.6)	0.84
Head and Neck	0.68 (0.008-14.2)	0.75	0.63 (0.008-13.5)	0.70
Otolaryngology	1.36 (0.22-26.0)	0.78	1.18 (0.18-23.2)	0.88
Pediatric Oncology	1.63 (0.21-34.0)	0.67	0.96 (0.12-20.4)	0.97
Cosmetic	2.89 (0.47-55.5)	0.33	2.59 (0.40-51.1)	0.40
Craniofacial	0.007 (0.0007-0.009)	0.90	0.005 (0.0002-0.006)	0.89
Reconstructive Plastic	2.46 (0.42-46.6)	0.41	2.17 (0.34-42.2)	0.48
Pulmonary	0.95 (0.15-18.4)	0.96	0.74 (0.11-14.8)	0.79
Thoracic	1.20 (0.20-22.9)	0.86	0.93 (0.15-18.0)	0.95
Robotic Thoracic	0.98 (0.16-18.9)	0.99	0.72 (0.11-14.3)	0.77
Robotic Urology	0.66 (0.11-12.6)	0.71	0.64 (0.10-12.6)	0.69
Urology	0.85 (0.14-16.1)	0.88	0.89 (0.14-17.4)	0.92
Vascular	0.64 (0.11-12.2)	0.68	0.73 (0.16-14.3)	0.78
Elective Surgery		Ref		Ref
Emergency Surgery	0.84 (0.75-0.97)	<0.001	0.81	<0.001
Urgent Surgery	0.88 (0.72-0.95)	0.07	0.79	0.003

Supplemental Table 5. Univariable and multivariable logistic regression models for preoperative antianxiety medication use. ASA class: American Society of Anesthesiologists Physical Status Score; COPD: Chronic obstructive pulmonary disease; HIV: Human immunodeficiency virus; CHF: congestive heart failure; BMI: body mass index

