

Supplementary Online Content

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This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Bivariate Associations

Variable	Transformation	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Median Operative Time (Minutes)	None	0.141***							
	Demeaned		0.154***						
	Demeaned, squared		-0.0001***						
Median Postoperative LOS (Days)	None			2.758***					
	Demeaned				3.409***				
	Demeaned, squared				-0.216***				
Reoperation Rate(%)	None					0.959***			
	Demeaned						1.532***		
	Demeaned, squared						-0.087***		
Readmission Rate (%)	None							0.843***	
	Demeaned								1.012***
	Demeaned, squared								-0.029**
Constant		3.106***	16.812***	10.742***	17.411***	12.964***	17.379***	11.340***	16.982***
R Squared		0.735	0.744	0.395	0.419	0.116	0.149	0.171	0.182
AIC		4445.335	4423.78	5044.793	5018.534	5320.9	5294.851	5273.704	5266.449
BIC		4454.511	4437.542	5053.968	5032.297	5330.075	5308.613	5282.879	5280.212

* p<0.05 ** p<0.01 *** p<0.001

AIC = Akaike's Information Criterion; BIC = Bayesian (Schwarz) Information Criterion

eTable 2. Building Multivariate Model Including Variable Transformations

Variable	Transformation	Model 9	Model 10	Model 11	Model 12	Model 13
Median Operative Time (Minutes)	None	0.119***				
	Demeaned		0.132***	0.132***	0.132***	0.131***
	Demeaned, squared		-0.000***	-0.000***	-0.000***	-0.000***
Median Postoperative LOS (Days)	None	1.409***	1.382***		1.328***	1.297***
	Demeaned			1.351***		
	Demeaned, squared			0.008		
Reoperation Rate(%)	None	-0.212**	-0.183*	-0.186*		
	Demeaned				0.054	-0.047
	Demeaned, squared				-0.025**	-0.016
Readmission Rate (%)	None	-0.033	-0.019	-0.012	-0.068	
	Demeaned					0.036
	Demeaned, squared					-0.012*
Constant		3.283***	14.806***	17.523***	14.896***	14.664***
R Squared		0.789	0.798	0.798	0.8	0.802
AIC		4287.044	4256.56	4258.479	4249.935	4247.596
BIC		4309.981	4284.085	4290.592	4282.048	4284.297

* p<0.05 ** p<0.01 *** p<0.001

AIC = Akaike's Information Criterion; BIC = Bayesian (Schwarz) Information Criterion
 Model 13 was the final model

eTable 3. Testing Potential Interactions

Variable		Model 14	Model 15	Model 16	Model 17	Model 18
Median Operative Time		0.109***	0.102***			0.095***
Median Postoperative LOS (Days)				4.052***	4.784***	0.882*
Reoperation Quartile	1	Reference				
	2	-1.34		1.413		0.039
	3	-0.192		1.462		-0.235
	4	1.501		0.483		-1.232
	Readmission Quartile	1	Reference			
	2		1.042		2.913**	0.977
	3		0.384		4.633***	-1.222
	4		1.153		-0.577	-1.347
Reoperation Quartile * Operative Time	1	Reference				
	2	0.035**				
	3	0.029*				
	4	0.028**				
	Readmission Quartile * Operative Time	1	Reference			
	2		0.013			0.004
	3		0.045***			0.037**
	4		0.036**			0.027*
Reoperation Quartile * LOS	1	Reference				
	2			-0.473		0.382
	3			-0.607		0.374
	4			-1.425*		0.349
	Readmission Quartile * LOS	1	Reference			
	2				-1.956	
	3				-2.581*	
	4				-1.727	
Constant		3.802***	3.609***	9.343***	8.944***	3.825***
R Squared		0.752	0.764	0.42	0.419	0.796
AIC		4408.961	4374.719	5027.14	5028.463	4280.877
BIC		4445.661	4411.42	5063.84	5065.163	4349.69

* p<0.05 ** p<0.01 *** p<0.001

AIC = Akaike's Information Criterion; BIC = Bayesian (Schwarz) Information Criterion

eTable 4. Full List of Included Procedures With Actual and Predicted Work Relative Value Units

**Procedures are ranked first by specialty and then from lowest (most negative) to highest standardized residual

CPT Code	CPT Description	Median operative time	Median postoperative LOS	Reoperation rate	Readmission rate	Specialty	Actual RVU	Predicted RVU
33533	Cabg arterial single	208	6	5.3%	12.6%	Cardiac Surgery	33.75	35.46
33405	Replacement aortic valve opn	211	6	7.3%	8.5%	Cardiac Surgery	41.32	35.62
35301	Rechanneling of artery	75	1	2.8%	10.5%	Cardiac Surgery	21.16	13.70
33361	Replace aortic valve perq	78.5	2	4.2%	10.2%	Cardiac Surgery	25.13	15.19
33430	Replacement of mitral valve	233	8	10.2%	9.0%	Cardiac Surgery	50.93	40.11
33410	Replacement aortic valve opn	186	6	7.5%	5.6%	Cardiac Surgery	46.41	32.87
45111	Partial removal of rectum	172	5	10.2%	13.1%	General Surgery	18.01	29.18
49568	Hernia repair w/mesh	82	1	3.6%	5.4%	General Surgery	4.88	14.49
11006	Debride genit/per/abdom wall	51	10	8.5%	7.8%	General Surgery	13.10	22.22
60540	Explore adrenal gland	152	4	3.5%	5.0%	General Surgery	18.02	26.79
19318	Reduction of large breast	174.5	0	2.6%	3.1%	General Surgery	16.03	24.66
27882	Amputation of lower leg	38	9	12.5%	8.7%	General Surgery	9.79	17.37
47610	Removal of gallbladder	154	5	2.0%	12.1%	General Surgery	20.92	28.47
50546	Laparoscopic nephrectomy	185	3	0.7%	6.7%	General Surgery	21.87	29.39
43117	Partial removal of esophagus	324	10	10.9%	10.2%	General Surgery	43.65	50.53
11004	Debride genitalia & perineum	36	9	10.9%	8.8%	General Surgery	10.80	17.63
44110	Excise intestine lesion(s)	93	5	4.6%	6.6%	General Surgery	14.04	20.80
11043	Deb musc/fascia 20 sq cm/<	24	4	6.4%	11.0%	General Surgery	2.70	9.37
49322	Laparoscopy aspiration	51	3	5.8%	13.3%	General Surgery	6.01	12.05
11000	Debride infected skin	19	3	9.2%	13.5%	General Surgery	0.60	6.54
43332	Transab esoph hiat hern rpr	139.5	4	3.3%	11.5%	General Surgery	19.62	25.44
58571	Tlh w/t/o 250 g or less	129	1	3.3%	4.6%	General Surgery	15.00	20.53
48140	Partial removal of pancreas	189	5	3.1%	16.1%	General Surgery	26.32	31.75
11042	Deb subq tissue 20 sq cm/<	19	2	6.1%	9.2%	General Surgery	1.01	6.29
45110	Removal of rectum	215.5	6	6.2%	14.3%	General Surgery	30.76	35.87
27886	Amputation follow-up surgery	58	4	4.5%	10.9%	General Surgery	10.02	14.65
44212	Laparo total proctocolectomy	274	5	5.6%	17.8%	General Surgery	34.58	39.10
47600	Removal of gallbladder	110	4	2.7%	9.4%	General Surgery	17.48	21.89
11044	Deb bone 20 sq cm/<	23	4	8.1%	14.7%	General Surgery	4.10	8.49
44125	Removal of small intestine	95	8	9.1%	14.7%	General Surgery	20.03	24.37
56405	I & d of vulva/perineum	16	2	5.4%	5.4%	General Surgery	1.49	5.76
49000	Exploration of abdomen	64	5	6.1%	9.6%	General Surgery	12.54	16.69
44312	Revision of ileostomy	63	3	3.8%	16.3%	General Surgery	9.43	13.50

20005	I&d abscess subfascial	18	3	3.5%	7.5%	General Surgery	3.58	7.54
47605	Removal of gallbladder	125	3	2.6%	6.1%	General Surgery	18.48	22.44
44640	Repair bowel-skin fistula	131	7	6.4%	13.6%	General Surgery	24.20	28.10
38120	Laparoscopy splenectomy	120	2	1.7%	8.9%	General Surgery	17.07	20.77
43333	Transab esoph hiat hern rpr	146	3	1.5%	8.5%	General Surgery	21.46	25.10
49650	Lap ing hernia repair init	61	0	0.5%	1.2%	General Surgery	6.36	9.94
44160	Removal of colon	110	6	5.8%	11.0%	General Surgery	20.89	24.31
49321	Laparoscopy biopsy	50	0	2.1%	14.3%	General Surgery	5.44	8.81
58150	Total hysterectomy	124	2	0.8%	2.3%	General Surgery	17.31	20.66
21501	Drain neck/chest lesion	17.5	3	5.9%	6.5%	General Surgery	3.98	7.17
43610	Excision of stomach lesion	92	4	3.0%	7.7%	General Surgery	16.34	19.50
38570	Laparoscopy lymph node biop	67	0	0.8%	10.4%	General Surgery	8.49	11.59
19300	Removal of breast tissue	49	0	1.9%	1.7%	General Surgery	5.31	8.35
60210	Partial thyroid excision	83	1	1.1%	1.8%	General Surgery	11.23	14.16
45395	Lap removal of rectum	241	4	4.3%	13.4%	General Surgery	33.00	35.88
60240	Removal of thyroid	110	1	1.2%	2.5%	General Surgery	15.04	17.86
43621	Removal of stomach	245	8	5.3%	9.9%	General Surgery	39.53	42.21
45400	Laparoscopic proc	131	2	2.7%	5.9%	General Surgery	19.44	22.00
60220	Partial removal of thyroid	80	1	1.0%	1.8%	General Surgery	11.19	13.73
45005	Drainage of rectal abscess	15	1	3.7%	3.7%	General Surgery	2.02	4.49
49651	Lap ing hernia repair recur	66	0	0.8%	1.6%	General Surgery	8.38	10.76
49421	Ins tun ip cath for dial opn	38	0	8.7%	11.7%	General Surgery	4.21	6.50
45540	Correct rectal prolapse	107	3	1.3%	8.3%	General Surgery	18.12	20.26
44020	Explore small intestine	64.5	6	5.7%	8.6%	General Surgery	16.22	18.23
49525	Repair ing hernia sliding	65	0	0.8%	3.5%	General Surgery	8.93	10.94
38745	Remove armpit lymph nodes	92	1	0.4%	4.9%	General Surgery	13.87	15.81
45505	Repair of rectum	52	1	1.4%	5.0%	General Surgery	8.36	10.28
49002	Reopening of abdomen	47	9	10.4%	8.5%	General Surgery	17.63	19.42
27603	Drain lower leg lesion	18	3	7.1%	12.2%	General Surgery	5.23	7.00
49507	Prp i/hern init block >5 yr	63	0	1.4%	3.7%	General Surgery	9.09	10.70
38100	Removal of spleen total	97	5	4.9%	13.0%	General Surgery	19.55	21.14
19304	Mast subq	54.5	0	4.4%	3.6%	General Surgery	7.95	9.36
25111	Remove wrist tendon lesion	29	0	0.0%	0.0%	General Surgery	3.53	4.94
44144	Partial removal of colon	133	9	8.0%	13.7%	General Surgery	29.91	31.28
19110	Nipple exploration	32	0	0.6%	1.7%	General Surgery	4.44	5.80
43284	Laps esophgl sphnctr agmntj	70	0	0.0%	2.5%	General Surgery	10.13	11.44
44960	Appendectomy	65	4	2.6%	7.9%	General Surgery	14.50	15.81
19305	Mast radical	115	1	3.6%	4.4%	General Surgery	17.46	18.73
44211	Lap colectomy w/proctectomy	273.5	5	6.9%	20.0%	General Surgery	37.08	38.28
44950	Appendectomy	54	2	2.2%	5.9%	General Surgery	10.60	11.73

44130	Bowel to bowel fusion	96.5	7	7.6%	15.5%	General Surgery	22.11	23.20
44050	Reduce bowel obstruction	62	5	4.6%	9.2%	General Surgery	15.52	16.60
60271	Removal of thyroid	117	1	0.9%	2.2%	General Surgery	17.62	18.69
44155	Removal of colon/ileostomy	207	7	10.1%	15.5%	General Surgery	34.42	35.45
44620	Repair bowel opening	71	3	4.1%	9.2%	General Surgery	14.43	15.34
44210	Laparo total proctocolectomy	195	4	6.4%	14.7%	General Surgery	30.09	30.97
36475	Endovenous rf 1st vein	36	0	0.7%	0.7%	General Surgery	5.30	6.18
15830	Exc skin abd	108.5	1	5.0%	6.6%	General Surgery	17.11	17.99
27590	Amputate leg at thigh	52	5	7.8%	14.0%	General Surgery	13.47	14.32
45119	Remove rectum w/reservoir	222	5	3.8%	19.3%	General Surgery	33.48	34.28
44140	Partial removal of colon	114	5	6.3%	10.4%	General Surgery	22.59	23.37
49505	Prp i/hern init reduc >5 yr	52	0	0.6%	1.6%	General Surgery	7.96	8.73
26990	Drainage of pelvis lesion	22	4	8.4%	9.3%	General Surgery	7.95	8.72
19020	Incision of breast lesion	16	1	3.7%	3.3%	General Surgery	3.83	4.59
43820	Fusion of stomach and bowel	98	7	5.9%	17.5%	General Surgery	22.53	23.28
44310	Ileostomy/jejunostomy	76	7	7.2%	23.3%	General Surgery	17.59	18.29
37700	Revise leg vein	26	0	0.0%	0.0%	General Surgery	3.82	4.48
27327	Exc thigh/knee les sc < 3 cm	24	0	0.0%	1.8%	General Surgery	3.96	4.56
27301	Drain thigh/knee lesion	18	3	5.9%	8.3%	General Surgery	6.78	7.32
45112	Removal of rectum	205	5	6.7%	7.6%	General Surgery	33.18	33.71
37765	Stab phleb veins xtr 10-20	51	0	0.0%	0.0%	General Surgery	7.71	8.21
49654	Lap inc hernia repair	81	1	1.1%	4.0%	General Surgery	13.76	14.24
27880	Amputation of lower leg	63	5	7.5%	14.9%	General Surgery	15.37	15.83
60225	Partial removal of thyroid	92	1	1.1%	1.1%	General Surgery	14.79	15.22
44005	Freeing of bowel adhesion	68	6	4.5%	11.4%	General Surgery	18.46	18.78
44208	L colectomy/coloproctostomy	222	5	7.4%	17.6%	General Surgery	33.99	34.26
24075	Exc arm/elbow les sc < 3 cm	24	0	0.5%	1.0%	General Surgery	4.24	4.42
49565	Rerepair ventrl hern reduce	67	1	2.7%	6.4%	General Surgery	12.37	12.53
44120	Removal of small intestine	86	6	7.0%	10.3%	General Surgery	20.82	20.97
45397	Lap remove rectum w/pouch	261	4	6.7%	17.4%	General Surgery	36.50	36.64
49590	Repair spigelian hernia	52	0	0.7%	3.0%	General Surgery	8.90	8.99
49521	Rerepair ing hernia blocked	68	0	2.0%	4.9%	General Surgery	11.48	11.56
49324	Lap insert tunnel ip cath	33	0	5.5%	10.9%	General Surgery	6.32	6.39
37607	Ligation of a-v fistula	32	0	3.9%	12.6%	General Surgery	6.25	6.27
44340	Revision of colostomy	45.5	1	4.0%	12.8%	General Surgery	9.28	9.25
47563	Laparo cholecystectomy/graph	61	1	1.1%	3.7%	General Surgery	11.47	11.40
37722	Ligate/strip long leg vein	47.5	0	0.0%	1.6%	General Surgery	8.16	8.04
44143	Partial removal of colon	115	8	8.0%	10.5%	General Surgery	27.79	27.64
44150	Removal of colon	147.5	8	11.5%	15.8%	General Surgery	30.18	30.01
32666	Thoracoscopy w/wedge resect	63.5	3	2.5%	6.8%	General Surgery	14.50	14.30

43633	Removal of stomach partial	176	7	8.9%	12.4%	General Surgery	33.14	32.94
49553	Rpr fem hernia init blocked	48	1	2.8%	5.0%	General Surgery	9.92	9.68
49656	Lap inc hernia repair recur	86	1	1.4%	3.4%	General Surgery	15.08	14.83
32651	Thoracoscopy remove cortex	69	6	7.6%	7.6%	General Surgery	18.78	18.53
46947	Hemorrhoidopexy by stapling	28	0	1.6%	2.2%	General Surgery	5.57	5.32
32663	Thoracoscopy w/lobectomy	132.5	4	0.8%	3.9%	General Surgery	24.64	24.36
44626	Repair bowel opening	147	5	4.8%	7.8%	General Surgery	27.90	27.62
45402	Lap proctopexy w/sig resect	160	3	4.4%	3.5%	General Surgery	26.51	26.22
44205	Lap colectomy part w/ileum	126	3	3.1%	7.8%	General Surgery	22.95	22.64
43631	Removal of stomach partial	118.5	5	4.6%	8.8%	General Surgery	24.51	24.18
27047	Exc hip/pelvis les sc < 3 cm	26.5	0	1.0%	0.0%	General Surgery	4.94	4.60
60200	Remove thyroid lesion	57	0	0.0%	2.7%	General Surgery	10.02	9.63
19125	Excision breast lesion	35	0	0.8%	1.4%	General Surgery	6.69	6.20
60254	Extensive thyroid surgery	194	1	3.9%	4.5%	General Surgery	28.42	27.87
19303	Mast simple complete	89	1	3.4%	3.9%	General Surgery	15.85	15.28
45541	Correct rectal prolapse	73	2	5.8%	10.7%	General Surgery	14.85	14.23
49520	Rerepair ing hernia reduce	56	0	0.6%	1.7%	General Surgery	9.99	9.34
49570	Rpr epigastric hern reduce	30	0	0.5%	1.1%	General Surgery	6.05	5.36
44314	Revision of ileostomy	77	3	4.6%	11.7%	General Surgery	16.74	16.02
44346	Revision of colostomy	97	4	7.4%	16.4%	General Surgery	19.63	18.90
49587	Rpr umbil hern block > 5 yr	35	0	0.9%	2.1%	General Surgery	7.08	6.34
43611	Excision of stomach lesion	97	4	0.0%	2.7%	General Surgery	20.38	19.62
46040	Incision of rectal abscess	15	1	5.0%	5.2%	General Surgery	5.37	4.56
49585	Rpr umbil hern reduc > 5 yr	32	0	0.5%	1.3%	General Surgery	6.59	5.72
49652	Lap vent/abd hernia repair	66	0	0.9%	2.6%	General Surgery	11.92	10.95
19120	Removal of breast lesion	27	0	0.7%	1.2%	General Surgery	5.92	4.94
44970	Laparoscopy appendectomy	41	1	0.9%	3.3%	General Surgery	9.45	8.43
46045	Incision of rectal abscess	17	1	6.2%	5.8%	General Surgery	5.87	4.77
47562	Laparoscopic cholecystectomy	53	0	0.9%	3.7%	General Surgery	10.47	9.26
44145	Partial removal of colon	145	5	5.5%	9.6%	General Surgery	28.58	27.31
38760	Remove groin lymph nodes	65.5	1	3.8%	10.2%	General Surgery	13.62	12.33
19307	Mast mod rad	101	1	3.1%	4.0%	General Surgery	18.23	16.90
45550	Repair rectum/remove sigmoid	122	4	2.2%	6.5%	General Surgery	24.80	23.35
38740	Remove armpit lymph nodes	51	0	4.0%	7.4%	General Surgery	10.70	9.23
49422	Remove tunneled ip cath	23	0	4.4%	13.1%	General Surgery	6.29	4.81
43107	Removal of esophagus	260	8	9.4%	10.7%	General Surgery	44.18	42.69
49566	Rerepair ventrl hern block	70	2	4.3%	8.2%	General Surgery	15.53	14.02
49550	Rpr rem hernia init reduce	42	0	1.3%	2.0%	General Surgery	8.99	7.38
47564	Laparo cholecystectomy/explr	94.5	1	2.4%	6.9%	General Surgery	18.00	16.34
44625	Repair bowel opening	72	3	3.9%	9.5%	General Surgery	17.28	15.49

43280	Laparoscopy fundoplasty	96	1	2.0%	4.2%	General Surgery	18.10	16.29
46060	Incision of rectal abscess	21	0	3.1%	4.5%	General Surgery	6.37	4.57
43860	Revise stomach-bowel fusion	144	4	5.6%	9.9%	General Surgery	27.89	25.84
60650	Laparoscopy adrenalectomy	113.5	1	0.6%	4.2%	General Surgery	20.73	18.55
43279	Lap myotomy heller	125	1	1.1%	3.4%	General Surgery	22.10	19.90
19302	P-mastectomy w/lr removal	71	0	2.0%	3.2%	General Surgery	13.99	11.76
38724	Removal of lymph nodes neck	140	1	3.5%	3.5%	General Surgery	23.95	21.71
49325	Lap revision perm ip cath	31	0	11.6%	11.9%	General Surgery	6.82	4.56
49655	Lap inc hern repair comp	83	1	1.2%	3.8%	General Surgery	16.84	14.49
45113	Partial proctectomy	204	5	3.6%	23.8%	General Surgery	33.22	30.95
44204	Laparo partial colectomy	138	3	3.2%	6.7%	General Surgery	26.42	24.05
43846	Gastric bypass for obesity	154	2	1.4%	8.8%	General Surgery	27.41	24.87
44141	Partial removal of colon	114	8	8.9%	10.0%	General Surgery	29.91	27.32
49572	Rpr epigastric hern blocked	29	0	0.8%	1.0%	General Surgery	7.87	5.21
60252	Removal of thyroid	120	1	1.1%	3.5%	General Surgery	22.01	19.28
19301	Partial mastectomy	41	0	1.2%	1.7%	General Surgery	10.13	7.17
43632	Removal of stomach partial	161	7	5.3%	11.5%	General Surgery	35.14	32.02
60500	Explore parathyroid glands	76	0	1.0%	2.7%	General Surgery	15.60	12.36
43840	Repair of stomach lesion	64	7	6.1%	9.7%	General Surgery	22.83	19.59
44227	Lap close enterostomy	149	3	3.7%	7.0%	General Surgery	28.62	25.35
44188	Lap colostomy	69	4	4.7%	13.3%	General Surgery	19.35	16.00
44146	Partial removal of colon	161.5	7	5.8%	12.7%	General Surgery	35.30	31.89
49560	Rpr ventral hern init reduc	48	0	1.6%	3.3%	General Surgery	11.92	8.49
44202	Lap enterectomy	95	4	3.5%	7.6%	General Surgery	23.39	19.88
35301	Rechanneling of artery	103	1	3.1%	6.3%	General Surgery	21.16	17.40
44602	Suture small intestine	74	7	5.5%	6.0%	General Surgery	24.72	20.97
44345	Revision of colostomy	59	3	3.3%	13.1%	General Surgery	17.22	13.46
49653	Lap vent/abd hern proc comp	67	0	0.9%	2.5%	General Surgery	14.94	11.06
44206	Lap part colectomy w/stoma	134	5	5.7%	11.5%	General Surgery	29.79	25.88
44180	Lap enterolysis	51	2	3.8%	7.5%	General Surgery	15.27	11.33
60260	Repeat thyroid surgery	83	1	0.9%	2.0%	General Surgery	18.26	14.19
44187	Lap ileo/jejuno-stomy	63	4	6.4%	20.5%	General Surgery	17.40	13.37
45020	Drainage of rectal abscess	19	1	9.5%	7.8%	General Surgery	8.56	4.49
48150	Partial removal of pancreas	344	8	5.3%	16.6%	General Surgery	52.84	48.89
45130	Excision of rectal prolapse	72	2	3.4%	8.2%	General Surgery	18.50	14.36
44158	Colectomy w/neo-rectum pouch	205.5	6	4.8%	23.5%	General Surgery	36.70	32.56
49203	Exc abd tum 5 cm or less	84.5	2	1.4%	3.6%	General Surgery	20.13	15.74
45123	Partial proctectomy	73	2	5.4%	9.6%	General Surgery	18.86	14.32
52601	Prostatectomy (turp)	57	1	1.0%	2.9%	General Surgery	15.26	10.71
11005	Debride abdom wall	29	4	8.7%	9.1%	General Surgery	14.24	9.72

27447	Total knee arthroplasty	90	2	0.4%	1.9%	General Surgery	20.72	16.17
14301	Tis trnfr any 30.1-60 sq cm	47	0	1.2%	1.2%	General Surgery	12.65	7.95
44320	Colostomy	60	5	6.2%	17.0%	General Surgery	19.91	15.22
44207	L colectomy/coloproctostomy	165	3	3.5%	6.4%	General Surgery	31.92	27.16
28805	Amputation thru metatarsal	39	5	17.2%	18.0%	General Surgery	12.71	8.07
48153	Pancreatectomy	321	8	4.7%	14.7%	General Surgery	52.79	47.81
49205	Exc abd tum over 10 cm	135	4	3.3%	4.4%	General Surgery	30.13	24.71
49204	Exc abd tum over 5 cm	108	3	4.1%	8.3%	General Surgery	26.13	20.31
49561	Rpr ventral hern init block	47	1	1.8%	4.8%	General Surgery	15.38	9.53
43772	Lap rmvl gastr adj device	58	0	0.5%	2.1%	General Surgery	15.70	9.69
49657	Lap inc hern recur comp	93	1	1.7%	4.9%	General Surgery	22.11	15.98
60502	Re-explore parathyroids	84	1	0.4%	2.2%	General Surgery	21.15	14.33
43845	Gastroplasty duodenal switch	170.5	2	5.7%	7.9%	General Surgery	33.30	26.47
47370	Laparo ablate liver tumor rf	79	1	1.4%	3.4%	General Surgery	20.80	13.88
43775	Lap sleeve gastrectomy	68	2	0.9%	2.7%	General Surgery	20.38	13.31
43645	Lap gastr bypass incl smll i	150	2	4.1%	7.7%	General Surgery	31.53	24.30
43774	Lap rmvl gastr adj all parts	48	0	1.4%	1.8%	General Surgery	15.76	8.21
43282	Lap paraesoph her rpr w/mesh	134	2	2.3%	5.9%	General Surgery	30.10	22.37
44157	Colectomy w/ileoanal anast	146	6	10.1%	9.2%	General Surgery	35.70	27.88
43281	Lap paraesophag hern repair	110	1	2.2%	4.6%	General Surgery	26.60	18.17
43644	Lap gastric bypass/roux-en-y	120	2	2.0%	4.9%	General Surgery	29.40	20.55
43770	Lap place gastr adj device	54	0	1.5%	1.8%	General Surgery	18.00	9.10
43848	Revision gastroplasty	134	3	4.7%	11.6%	General Surgery	32.75	23.42
47120	Partial removal of liver	160	4	1.6%	7.4%	General Surgery	39.01	27.94
49020	Drainage abdom abscess open	47	6	9.7%	12.4%	General Surgery	26.67	14.71
47130	Partial removal of liver	242	6	4.9%	11.2%	General Surgery	57.19	38.86
47122	Extensive removal of liver	257	6	4.6%	13.3%	General Surgery	59.48	40.02
47125	Partial removal of liver	198	5	1.8%	7.4%	General Surgery	53.04	33.39
57282	Colpopexy extraperitoneal	93	1	1.3%	2.5%	Gynecology	7.97	15.64
58544	Lsh w/t/o uterus above 250 g	146	1	0.5%	2.1%	Gynecology	15.60	22.21
58541	Lsh uterus 250 g or less	110	1	1.2%	0.8%	Gynecology	12.29	17.52
58546	Laparo-myomectomy complex	178.5	0	0.7%	1.4%	Gynecology	19.94	24.77
58545	Laparoscopic myomectomy	140	0	0.4%	1.5%	Gynecology	15.55	20.38
58940	Removal of ovary(s)	65	2	1.5%	3.0%	Gynecology	8.22	12.95
57425	Laparoscopy surg colpopexy	141	1	2.4%	2.4%	Gynecology	17.03	21.69
58570	Tlh uterus 250 g or less	109	1	1.5%	2.6%	Gynecology	13.36	17.76
57120	Closure of vagina	70.5	1	2.2%	2.2%	Gynecology	8.28	12.52
58542	Lsh w/t/o ut 250 g or less	113.5	1	0.8%	2.2%	Gynecology	14.16	18.25
56405	I & d of vulva/perineum	18	1	3.8%	5.4%	Gynecology	1.49	5.15
58951	Resect ovarian malignancy	167	3	0.8%	8.0%	Gynecology	24.26	27.49

49321	Laparoscopy biopsy	45	0	1.2%	4.0%	Gynecology	5.44	8.13
58572	Tlh uterus over 250 g	130	1	1.7%	2.3%	Gynecology	17.71	20.34
58571	Tlh w/t/o 250 g or less	107	1	1.1%	2.7%	Gynecology	15.00	17.51
49000	Exploration of abdomen	76.5	2	1.9%	8.1%	Gynecology	12.54	15.03
58950	Resect ovarian malignancy	110	3	1.9%	5.7%	Gynecology	18.37	20.52
56740	Remove vagina gland lesion	40	0	3.0%	1.4%	Gynecology	4.88	6.93
58720	Removal of ovary/tube(s)	73	2	1.6%	3.1%	Gynecology	12.16	14.09
49322	Laparoscopy aspiration	45	0	1.8%	2.0%	Gynecology	6.01	7.82
58140	Myomectomy abdom method	100	2	0.3%	1.0%	Gynecology	15.79	17.30
58200	Extensive hysterectomy	143	3	0.5%	5.7%	Gynecology	23.10	24.58
58550	Laparo-asst vag hysterectomy	100	1	1.9%	2.5%	Gynecology	15.10	16.56
58150	Total hysterectomy	106	2	2.0%	4.1%	Gynecology	17.31	18.67
56810	Repair of perineum	30.5	0	2.6%	1.7%	Gynecology	4.29	5.59
58943	Removal of ovary(s)	111	3	1.6%	6.3%	Gynecology	19.52	20.69
57135	Remove vagina lesion	21	0	0.0%	0.3%	Gynecology	2.70	3.80
58180	Partial hysterectomy	98	2	1.4%	2.4%	Gynecology	16.60	17.36
56440	Surgery for vulva lesion	19	0	1.1%	0.7%	Gynecology	2.89	3.62
58573	Tlh w/t/o uterus over 250 g	138	1	1.2%	2.6%	Gynecology	20.79	21.36
58146	Myomectomy abdom complex	126	2	0.7%	2.3%	Gynecology	20.34	20.90
58925	Removal of ovarian cyst(s)	73	1	0.2%	1.8%	Gynecology	12.43	12.74
57267	Insert mesh/pelvic flr addon	26.5	0	0.0%	2.9%	Gynecology	4.88	5.14
58552	Laparo-vag hyst incl t/o	103	1	1.2%	2.5%	Gynecology	16.91	16.95
58956	Bso omentectomy w/tah	129	3	0.9%	4.7%	Gynecology	22.80	22.79
58553	Laparo-vag hyst complex	127	1	1.8%	2.4%	Gynecology	20.06	19.99
57200	Repair of vagina	22	0	0.9%	1.9%	Gynecology	4.42	4.31
58263	Vag hyst w/t/o & vag repair	101	1	2.2%	3.1%	Gynecology	17.23	16.80
58600	Division of fallopian tube	30	0	0.0%	0.9%	Gynecology	5.91	5.29
58353	Endometr ablate thermal	13	0	0.0%	0.7%	Gynecology	3.60	2.63
58260	Vaginal hysterectomy	73.5	1	1.6%	3.2%	Gynecology	14.15	13.09
58670	Laparoscopy tubal cautery	27	0	0.3%	0.7%	Gynecology	5.91	4.81
58952	Resect ovarian malignancy	144	4	2.9%	11.1%	Gynecology	27.29	26.02
58270	Vag hyst w/enterocele repair	78.5	1	1.8%	2.4%	Gynecology	15.30	13.65
59120	Treat ectopic pregnancy	52	2	1.6%	2.1%	Gynecology	12.67	10.93
57295	Revise vag graft via vagina	34	0	0.0%	1.8%	Gynecology	7.82	6.08
58671	Laparoscopy tubal block	23	0	0.2%	0.2%	Gynecology	5.91	4.08
58554	Laparo-vag hyst w/t/o compl	135	1	1.1%	2.7%	Gynecology	23.11	21.01
56620	Partial removal of vulva	30	0	1.0%	1.3%	Gynecology	7.53	5.43
58262	Vag hyst including t/o	79	1	1.4%	2.6%	Gynecology	15.94	13.76
58290	Vag hyst complex	109	1	1.6%	4.7%	Gynecology	20.27	18.06
57260	Repair of vagina	69	1	1.0%	1.2%	Gynecology	14.44	12.10

58662	Laparoscopy excise lesions	58	0	0.7%	0.9%	Gynecology	12.15	9.47
58145	Myomectomy vag method	32	0	1.4%	1.9%	Gynecology	8.91	5.86
59150	Treat ectopic pregnancy	54	0	2.0%	2.4%	Gynecology	12.29	9.20
57250	Repair rectum & vagina	46	0	1.7%	2.3%	Gynecology	11.50	8.02
58661	Laparoscopy remove adnexa	47	0	0.4%	0.8%	Gynecology	11.35	7.84
59151	Treat ectopic pregnancy	51	0	0.6%	0.6%	Gynecology	12.11	8.39
58210	Extensive hysterectomy	162	3	1.8%	6.0%	Gynecology	30.91	26.84
57240	Repair bladder & vagina	38	1	0.2%	0.5%	Gynecology	11.50	7.41
58660	Laparoscopy lysis	43	0	0.6%	0.6%	Gynecology	11.59	7.22
58291	Vag hyst incl t/o complex	104	1	2.6%	3.1%	Gynecology	22.06	17.17
57265	Extensive repair of vagina	55	1	0.8%	1.9%	Gynecology	15.94	10.23
58700	Removal of fallopian tube	39	0	0.7%	1.4%	Gynecology	12.95	6.79
44180	Lap enterolysis	47	0	1.9%	5.0%	Gynecology	15.27	8.55
57288	Repair bladder defect	28	0	0.8%	0.7%	Gynecology	12.13	4.98
58953	Tah rad dissect for debulk	152	4	2.0%	5.9%	Gynecology	34.13	26.92
58954	Tah rad debulk/lymph remove	176	4	2.4%	10.6%	Gynecology	37.13	29.71
58548	Lap radical hyst	159	1	1.4%	5.1%	Gynecology	31.63	24.18
22600	Neck spine fusion	158	3	5.8%	4.3%	Neurosurgery	17.40	25.94
22630	Lumbar spine fusion	195	3	3.7%	4.2%	Neurosurgery	22.09	30.18
22612	Lumbar spine fusion	199.5	3	4.0%	7.0%	Neurosurgery	23.53	30.87
22633	Lumbar spine fusion combined	204.5	3	3.1%	7.2%	Neurosurgery	27.75	31.45
63017	Remove spine lamina >2 lmb	125	2	3.6%	3.8%	Neurosurgery	17.33	21.00
63003	Remove spine lamina 1/2 thr	117	3	5.1%	12.8%	Neurosurgery	17.74	21.16
22852	Remove spine fixation device	66.5	1	1.6%	7.4%	Neurosurgery	9.37	12.53
63282	Bx/exc idrl spine lesn lmb	191	4	6.1%	5.3%	Neurosurgery	28.15	30.88
22558	Lumbar spine fusion	162	2	2.7%	5.7%	Neurosurgery	23.53	25.64
63005	Remove spine lamina 1/2 lmb	102	2	2.5%	4.9%	Neurosurgery	16.43	18.24
63271	Excise intrspin lesion thr	181	5	1.9%	6.7%	Neurosurgery	29.92	31.56
22554	Neck spine fusion	117	1	0.9%	4.2%	Neurosurgery	17.69	19.00
63266	Excise intrspin lesion thr	110.5	7	5.7%	4.9%	Neurosurgery	24.68	25.71
35301	Rechanneling of artery	131	2	2.9%	5.2%	Neurosurgery	21.16	21.93
61885	Insrt/redo neurostim 1 array	34	0	0.8%	3.1%	Neurosurgery	6.05	6.36
63281	Bx/exc idrl spine lesn thr	181	4	5.7%	7.6%	Neurosurgery	29.99	30.01
63030	Low back disk surgery	74.5	1	1.8%	2.8%	Neurosurgery	13.18	13.18
63046	Remove spine lamina 1 thr	93.5	2	5.0%	8.1%	Neurosurgery	17.25	17.16
63001	Remove spine lamina 1/2 crvl	94	2	4.3%	9.1%	Neurosurgery	17.61	17.30
61500	Removal of skull lesion	105	2	2.5%	6.6%	Neurosurgery	19.18	18.77
61313	Open skull for drainage	105	10	13.5%	3.0%	Neurosurgery	28.09	27.59
63051	C-laminoplasty w/graft/plate	143	3	1.8%	6.3%	Neurosurgery	25.51	24.65
61548	Removal of pituitary gland	125	3	3.7%	6.6%	Neurosurgery	23.37	22.43

63015	Remove spine lamina >2 crvcl	105	3	4.2%	6.8%	Neurosurgery	20.85	19.86
63047	Remove spine lamina 1 lmr	79	1	2.1%	3.8%	Neurosurgery	15.37	13.95
61304	Open skull for exploration	109	4	4.8%	9.5%	Neurosurgery	23.41	21.62
63276	Bx/exc xdr spine lesn thr	117.5	5	4.7%	15.3%	Neurosurgery	25.69	23.49
63075	Neck spine disk surgery	106	1	3.2%	1.6%	Neurosurgery	19.60	17.15
63020	Neck spine disk surgery	78	1	0.8%	1.9%	Neurosurgery	16.20	13.49
63045	Remove spine lamina 1 crvl	85	1	2.2%	4.9%	Neurosurgery	17.95	14.90
61886	Implant neurostim arrays	37	0	0.3%	1.7%	Neurosurgery	9.93	6.53
61458	Incise skull for brain wound	148.5	3	4.3%	8.0%	Neurosurgery	28.84	25.27
61510	Removal of brain lesion	162	3	4.0%	11.0%	Neurosurgery	30.83	26.82
61322	Decompressive craniotomy	116	13	20.6%	2.5%	Neurosurgery	34.26	30.82
61343	Incise skull (press relief)	174	3	7.0%	12.8%	Neurosurgery	31.86	27.62
63042	Laminotomy single lumbar	81	1	2.9%	4.1%	Neurosurgery	18.76	14.25
63267	Excise intrspinl lesion lmr	82.5	1	3.3%	5.6%	Neurosurgery	19.45	14.60
22551	Neck spine fuse&remov bel c2	119	1	1.4%	3.3%	Neurosurgery	25.00	19.14
61512	Remove brain lining lesion	197.5	3	3.8%	7.7%	Neurosurgery	37.14	30.72
63056	Decompress spinal cord lmr	83	1	1.9%	2.3%	Neurosurgery	21.86	14.25
63272	Excise intrspinl lesion lmr	122	1	2.4%	5.4%	Neurosurgery	27.50	19.77
61519	Remove brain lining lesion	235	4	8.4%	7.6%	Neurosurgery	43.43	34.92
22856	Cerv artific diskectomy	93	1	0.9%	1.2%	Neurosurgery	24.05	15.38
61312	Open skull for drainage	88	7	13.2%	10.0%	Neurosurgery	30.17	20.96
61518	Removal of brain lesion	182	4	7.8%	14.2%	Neurosurgery	39.89	29.41
22857	Lumbar artif diskectomy	99	1	0.7%	1.5%	Neurosurgery	27.13	16.22
61521	Removal of brain lesion	211	4	11.8%	12.7%	Neurosurgery	46.99	31.46
61520	Removal of brain lesion	296.5	4	6.6%	10.2%	Neurosurgery	57.09	40.44
61700	Brain aneurysm repr simple	201	4	7.1%	5.9%	Neurosurgery	50.62	31.80
61697	Brain aneurysm repr complx	253	9	9.8%	6.9%	Neurosurgery	63.40	43.64
24546	Treat humerus fracture	171.5	1	1.9%	6.5%	Orthopedics	14.91	25.70
24435	Repair humerus with graft	163	1	2.5%	5.9%	Orthopedics	14.99	24.70
24545	Treat humerus fracture	137	1	2.6%	6.4%	Orthopedics	13.15	21.69
27507	Treatment of thigh fracture	119	4	1.7%	6.2%	Orthopedics	14.48	22.95
22630	Lumbar spine fusion	186	3	4.2%	7.1%	Orthopedics	22.09	29.45
23552	Treat clavicle dislocation	105	0	1.9%	1.0%	Orthopedics	8.82	15.93
24515	Treat humerus fracture	116	1	2.4%	4.8%	Orthopedics	12.12	18.95
27488	Removal of knee prosthesis	129	4	5.3%	10.9%	Orthopedics	17.60	24.04
27514	Treatment of thigh fracture	104	4	2.1%	5.7%	Orthopedics	14.60	20.99
11044	Deb bone 20 sq cm/<	33	4	8.3%	10.5%	Orthopedics	4.10	10.38
27472	Repair/graft of thigh	150.5	3	2.0%	2.0%	Orthopedics	18.72	24.98
11042	Deb subq tissue 20 sq cm/<	25	2	5.6%	7.6%	Orthopedics	1.01	7.26
25575	Treat fracture radius/ulna	115	1	1.0%	1.7%	Orthopedics	12.29	18.35

24430	Repair of humerus	132	1	4.1%	6.8%	Orthopedics	15.25	21.03
27702	Reconstruct ankle joint	129	1	0.7%	1.8%	Orthopedics	14.42	20.11
11043	Deb musc/fascia 20 sq cm/<	29	3	9.5%	8.8%	Orthopedics	2.70	8.29
29826	Shoulder arthroscopy/surgery	52	0	0.2%	0.5%	Orthopedics	3.00	8.48
24665	Treat radius fracture	86	0	1.1%	1.7%	Orthopedics	8.36	13.55
27427	Reconstruction knee	97.5	0	1.0%	1.0%	Orthopedics	9.79	14.94
27511	Treatment of thigh fracture	97	4	2.7%	8.7%	Orthopedics	15.11	20.20
23615	Treat humerus fracture	101	1	2.6%	4.0%	Orthopedics	12.30	16.92
23550	Treat clavicle dislocation	78	0	0.6%	0.6%	Orthopedics	7.59	12.20
22852	Remove spine fixation device	79.5	1	0.0%	1.8%	Orthopedics	9.37	13.61
27380	Repair of kneecap tendon	71	0	2.8%	2.2%	Orthopedics	7.45	11.58
27440	Revision of knee joint	74	3	0.5%	1.6%	Orthopedics	11.09	15.10
27758	Treatment of tibia fracture	89	2	3.2%	5.4%	Orthopedics	12.54	16.55
22633	Lumbar spine fusion combined	208	3	2.5%	5.4%	Orthopedics	27.75	31.70
27886	Amputation follow-up surgery	67	3	7.5%	14.0%	Orthopedics	10.02	13.96
27535	Treat knee fracture	95	2	1.7%	4.0%	Orthopedics	13.41	17.22
27823	Treatment of ankle fracture	102	1	1.5%	2.7%	Orthopedics	13.16	16.86
29871	Knee arthroscopy/drainage	36	4	10.6%	7.9%	Orthopedics	6.69	10.23
22612	Lumbar spine fusion	163	3	3.3%	5.9%	Orthopedics	23.53	26.91
24685	Treat ulnar fracture	70	0	3.1%	3.7%	Orthopedics	8.37	11.67
25574	Treat fracture radius & ulna	77	0	0.0%	0.8%	Orthopedics	8.80	12.09
23515	Treat clavicle fracture	83	0	1.0%	0.9%	Orthopedics	9.69	12.96
25440	Repair/graft wrist bone	92	0	0.0%	0.0%	Orthopedics	10.68	13.93
26735	Treat finger fracture each	65	0	0.9%	1.8%	Orthopedics	7.42	10.66
27385	Repair of thigh muscle	61	0	1.4%	2.1%	Orthopedics	6.93	10.15
27822	Treatment of ankle fracture	83	1	1.7%	3.1%	Orthopedics	11.21	14.40
23630	Treat humerus fracture	86	0	0.8%	2.3%	Orthopedics	10.57	13.66
26356	Repair finger/hand tendon	80	0	3.5%	1.4%	Orthopedics	9.56	12.63
27470	Repair of thigh	109	3	2.3%	3.9%	Orthopedics	17.14	20.18
24340	Repair of biceps tendon	70	0	0.0%	0.8%	Orthopedics	8.08	11.11
24516	Treat humerus fracture	78	2	2.5%	5.8%	Orthopedics	12.19	15.11
24586	Treat elbow fracture	117.5	1	1.2%	1.2%	Orthopedics	15.78	18.57
25515	Treat fracture of radius	72	0	0.9%	1.2%	Orthopedics	8.80	11.52
27310	Exploration of knee joint	49	4	8.5%	10.6%	Orthopedics	10.00	12.70
27442	Revision of knee joint	87	1	1.6%	3.9%	Orthopedics	12.37	15.05
24363	Replace elbow joint	158	2	1.8%	1.8%	Orthopedics	22.00	24.65
27695	Repair of ankle ligament	58	0	0.8%	0.0%	Orthopedics	6.70	9.26
25545	Treat fracture of ulna	64.5	0	0.0%	1.4%	Orthopedics	7.94	10.47
26615	Treat metacarpal fracture	58	0	1.0%	0.8%	Orthopedics	7.07	9.46
27513	Treatment of thigh fracture	108	4	2.2%	10.1%	Orthopedics	19.25	21.63

27524	Treat kneecap fracture	71	1	3.0%	3.2%	Orthopedics	10.37	12.73
24341	Repair arm tendon/muscle	75	0	0.4%	0.7%	Orthopedics	9.49	11.80
24105	Removal of elbow bursa	30	0	4.3%	5.2%	Orthopedics	3.78	5.94
27603	Drain lower leg lesion	26	3	11.0%	8.6%	Orthopedics	5.23	7.36
27590	Amputate leg at thigh	69.5	4	6.3%	15.2%	Orthopedics	13.47	15.58
27248	Treat thigh fracture	53	3	2.4%	9.6%	Orthopedics	10.78	12.86
25405	Repair/graft radius or ulna	110	0	0.7%	3.6%	Orthopedics	15.01	17.03
23462	Repair shoulder capsule	117	0	1.9%	1.9%	Orthopedics	15.72	17.65
27301	Drain thigh/knee lesion	29	3	7.6%	10.4%	Orthopedics	6.78	8.70
27880	Amputation of lower leg	69	5	6.4%	11.5%	Orthopedics	15.37	17.26
26410	Repair hand tendon	40	0	0.7%	0.0%	Orthopedics	4.77	6.63
27759	Treatment of tibia fracture	88	2	0.7%	4.2%	Orthopedics	14.45	16.29
27814	Treatment of ankle fracture	69	1	1.2%	2.5%	Orthopedics	10.62	12.36
26418	Repair finger tendon	35	0	0.8%	0.8%	Orthopedics	4.47	6.07
25111	Remove wrist tendon lesion	29	0	0.5%	0.5%	Orthopedics	3.53	5.08
27536	Treat knee fracture	109	2	1.7%	3.2%	Orthopedics	17.39	18.93
27602	Decompression of lower leg	54	0	3.1%	3.1%	Orthopedics	7.82	9.30
25400	Repair radius or ulna	82	0	0.0%	0.7%	Orthopedics	11.28	12.75
29846	Wrist arthroscopy/surgery	51	0	0.3%	0.0%	Orthopedics	6.89	8.23
63005	Remove spine lamina 1/2 Imbr	101	2	0.5%	2.0%	Orthopedics	16.43	17.66
26540	Repair hand joint	48	0	1.0%	0.0%	Orthopedics	6.60	7.82
25628	Treat wrist bone fracture	68	0	0.9%	0.9%	Orthopedics	9.67	10.89
64708	Revise arm/leg nerve	44	0	1.9%	0.9%	Orthopedics	6.36	7.46
27030	Drainage of hip joint	59	5	11.2%	11.2%	Orthopedics	13.65	14.68
63051	C-laminoplasty w/graft/plate	159	3	0.9%	5.5%	Orthopedics	25.51	26.43
25320	Repair/revise wrist joint	85	0	1.6%	3.1%	Orthopedics	12.75	13.67
27438	Revise kneecap with implant	73	1	2.5%	1.9%	Orthopedics	11.89	12.79
27340	Removal of kneecap bursa	28	0	5.9%	2.9%	Orthopedics	4.32	5.16
27827	Treat lower leg fracture	94	1	0.3%	1.5%	Orthopedics	14.79	15.55
25607	Treat fx rad extra-articul	63	0	0.7%	1.4%	Orthopedics	9.56	10.29
27792	Treatment of ankle fracture	57	0	1.0%	1.5%	Orthopedics	8.75	9.47
27784	Treatment of fibula fracture	64	0	1.9%	0.9%	Orthopedics	9.67	10.35
22558	Lumbar spine fusion	155	2	0.0%	1.4%	Orthopedics	23.53	24.16
27766	Optx medial ankle fx	50	0	0.4%	2.0%	Orthopedics	7.89	8.51
24342	Repair of ruptured tendon	72	0	0.7%	0.9%	Orthopedics	10.86	11.45
25112	Reremove wrist tendon lesion	30	0	0.0%	0.6%	Orthopedics	4.67	5.22
22554	Neck spine fusion	112	1	1.8%	2.7%	Orthopedics	17.69	18.15
29862	Hip arthr0 w/debridement	72	0	0.4%	1.7%	Orthopedics	11.17	11.60
27654	Repair of achilles tendon	65	0	0.9%	2.8%	Orthopedics	10.53	10.83
27828	Treat lower leg fracture	116	1	2.2%	2.9%	Orthopedics	18.43	18.69

26746	Treat finger fracture each	61	0	2.0%	1.4%	Orthopedics	9.80	10.01
29888	Knee arthroscopy/surgery	94	0	0.5%	0.7%	Orthopedics	14.30	14.39
27600	Decompression of lower leg	33	0	2.4%	2.4%	Orthopedics	6.03	6.10
27698	Repair of ankle ligament	61	0	0.5%	0.0%	Orthopedics	9.61	9.68
27125	Partial hip replacement	71	4	3.2%	8.8%	Orthopedics	16.64	16.64
25000	Incision of tendon sheath	18	0	0.8%	0.9%	Orthopedics	3.55	3.50
26951	Amputation of finger/thumb	29	0	4.1%	6.6%	Orthopedics	6.04	5.92
23455	Repair shoulder capsule	95	0	0.0%	0.5%	Orthopedics	14.67	14.44
23430	Repair biceps tendon	59	0	0.0%	1.6%	Orthopedics	10.17	9.71
26727	Treat finger fracture each	27.5	0	2.0%	0.7%	Orthopedics	5.42	4.94
25608	Treat fx rad intra-articul	65	0	0.8%	1.5%	Orthopedics	11.07	10.58
27650	Repair achilles tendon	53	0	0.3%	0.8%	Orthopedics	9.21	8.70
27829	Treat lower leg joint	48	0	1.0%	1.8%	Orthopedics	8.80	8.21
29873	Knee arthroscopy/surgery	30	0	2.0%	2.3%	Orthopedics	6.24	5.64
25447	Repair wrist joints	64	0	0.5%	0.6%	Orthopedics	11.14	10.25
23120	Partial removal collar bone	38	0	0.4%	0.4%	Orthopedics	7.39	6.42
27495	Reinforce thigh	72	3	1.9%	9.2%	Orthopedics	16.54	15.57
27187	Reinforce hip bones	55	3	1.3%	9.0%	Orthopedics	14.23	13.15
26952	Amputation of finger/thumb	25	0	4.1%	8.9%	Orthopedics	6.48	5.38
29824	Shoulder arthroscopy/surgery	47	0	0.2%	1.0%	Orthopedics	8.98	7.87
63047	Remove spine lamina 1 Imbr	81	1	2.7%	3.9%	Orthopedics	15.37	14.23
29822	Shoulder arthroscopy/surgery	36	0	0.8%	1.4%	Orthopedics	7.60	6.35
27687	Revision of calf tendon	28	0	0.6%	1.3%	Orthopedics	6.41	5.10
27236	Treat thigh fracture	68	4	3.1%	9.1%	Orthopedics	17.61	16.23
27138	Revise hip joint replacement	125	3	6.1%	8.6%	Orthopedics	23.70	22.24
63030	Low back disk surgery	71	0	2.1%	2.9%	Orthopedics	13.18	11.71
29884	Knee arthroscopy/surgery	39	0	0.9%	1.4%	Orthopedics	8.28	6.80
29874	Knee arthroscopy/surgery	32	0	0.9%	1.2%	Orthopedics	7.19	5.71
29823	Shoulder arthroscopy/surgery	40	0	0.9%	0.6%	Orthopedics	8.36	6.78
24358	Repair elbow w/deb open	28	0	1.0%	1.0%	Orthopedics	6.66	5.06
28805	Amputation thru metatarsal	47.5	3	8.7%	12.4%	Orthopedics	12.71	11.07
29875	Knee arthroscopy/surgery	25	0	2.0%	1.8%	Orthopedics	6.45	4.79
29825	Shoulder arthroscopy/surgery	36	0	0.4%	0.4%	Orthopedics	7.79	6.11
27635	Remove lower leg bone lesion	35	0	0.0%	1.0%	Orthopedics	8.03	6.07
28445	Treat ankle fracture	91	0	0.0%	0.0%	Orthopedics	15.76	13.80
23470	Reconstruct shoulder joint	94	1	1.1%	2.7%	Orthopedics	17.89	15.80
23412	Repair rotator cuff chronic	57	0	1.3%	2.8%	Orthopedics	11.93	9.70
27137	Revise hip joint replacement	109	3	6.4%	7.5%	Orthopedics	22.70	20.14
23410	Repair rotator cuff acute	54	0	0.3%	0.6%	Orthopedics	11.39	8.81
29880	Knee arthroscopy/surgery	26	0	0.4%	1.0%	Orthopedics	7.39	4.73

29881	Knee arthroscopy/surgery	24	0	0.3%	0.6%	Orthopedics	7.03	4.33
29882	Knee arthroscopy/surgery	41	0	0.2%	0.4%	Orthopedics	9.60	6.85
27506	Treatment of thigh fracture	73	4	2.2%	6.2%	Orthopedics	19.65	16.85
27487	Revise/replace knee joint	140	3	3.0%	5.2%	Orthopedics	27.11	24.18
29876	Knee arthroscopy/surgery	32	0	2.7%	1.8%	Orthopedics	8.87	5.83
27132	Total hip arthroplasty	127	3	4.7%	6.9%	Orthopedics	25.69	22.60
29828	Arthroscopy biceps tenodesis	62	0	0.4%	0.8%	Orthopedics	13.16	9.99
29879	Knee arthroscopy/surgery	33	0	0.2%	0.2%	Orthopedics	8.99	5.61
25609	Treat fx radial 3+ frag	67	0	0.9%	1.6%	Orthopedics	14.38	10.89
29877	Knee arthroscopy/surgery	26	0	0.9%	1.2%	Orthopedics	8.30	4.79
24359	Repair elbow deb/atrch open	31	0	0.7%	0.7%	Orthopedics	8.98	5.44
29827	Arthroscop rotator cuff repr	75	0	0.2%	1.2%	Orthopedics	15.59	11.90
23420	Repair of shoulder	62	0	0.0%	0.0%	Orthopedics	13.54	9.79
29806	Shoulder arthroscopy/surgery	72	0	0.2%	0.4%	Orthopedics	15.14	11.32
27446	Revision of knee joint	79	1	0.8%	1.8%	Orthopedics	17.48	13.60
27269	Optx thigh fx	58	4	1.7%	9.0%	Orthopedics	18.89	14.83
29807	Shoulder arthroscopy/surgery	66	0	0.2%	0.3%	Orthopedics	14.67	10.45
63042	Laminotomy single lumbar	83	1	3.8%	4.4%	Orthopedics	18.76	14.50
27245	Treat thigh fracture	49	4	1.8%	8.0%	Orthopedics	18.18	13.52
27486	Revise/replace knee joint	87	2	2.7%	5.0%	Orthopedics	21.12	16.24
27244	Treat thigh fracture	48	4	2.1%	6.9%	Orthopedics	18.18	13.33
27130	Total hip arthroplasty	84	2	1.9%	3.4%	Orthopedics	20.72	15.64
23472	Reconstruct shoulder joint	102	1	1.4%	3.1%	Orthopedics	22.13	16.92
27447	Total knee arthroplasty	83	2	1.1%	3.1%	Orthopedics	20.72	15.47
63267	Excise intrspinl lesion lmb	80	1	0.8%	2.3%	Orthopedics	19.45	13.83
22551	Neck spine fuse&remov bel c2	115.5	1	1.9%	4.8%	Orthopedics	25.00	18.90
27254	Treat hip dislocation	53	3	3.2%	7.7%	Orthopedics	18.94	12.82
29883	Knee arthroscopy/surgery	32	0	0.0%	1.0%	Orthopedics	11.77	5.62
23473	Revis reconst shoulder joint	106	1	4.2%	7.9%	Orthopedics	25.00	17.79
27134	Revise hip joint replacement	128	3	6.3%	8.1%	Orthopedics	30.28	22.57
23474	Revis reconst shoulder joint	118	1	3.5%	3.5%	Orthopedics	27.21	19.00
22856	Cerv artific diskectomy	87	1	0.6%	0.9%	Orthopedics	24.05	14.49
63056	Decompress spinal cord lmb	62.5	0	1.4%	0.9%	Orthopedics	21.86	10.14
60280	Remove thyroid duct lesion	76	0	1.1%	0.8%	Otolaryngology (ENT)	6.16	12.00
42440	Excise submaxillary gland	73	0	0.9%	2.0%	Otolaryngology (ENT)	6.14	11.81
42815	Excision of neck cyst	83	0	0.0%	0.8%	Otolaryngology (ENT)	7.31	12.91
69642	Revise middle ear & mastoid	161	0	0.0%	0.7%	Otolaryngology (ENT)	17.06	22.63
42410	Excise parotid gland/lesion	97	0	0.9%	0.4%	Otolaryngology (ENT)	9.57	14.75
21462	Treat lower jaw fracture	102	0	2.7%	2.7%	Otolaryngology (ENT)	11.01	15.86
69645	Revise middle ear & mastoid	150	0	0.6%	0.6%	Otolaryngology (ENT)	16.71	21.38

42330	Removal of salivary stone	36	0	0.0%	1.8%	Otolaryngology (ENT)	2.26	6.39
60240	Removal of thyroid	120	1	1.1%	2.5%	Otolaryngology (ENT)	15.04	19.12
69644	Revise middle ear & mastoid	146.5	0	0.9%	0.9%	Otolaryngology (ENT)	17.23	21.05
60210	Partial thyroid excision	88	1	1.3%	2.9%	Otolaryngology (ENT)	11.23	15.03
21501	Drain neck/chest lesion	26	3	9.4%	4.5%	Otolaryngology (ENT)	3.98	7.57
60220	Partial removal of thyroid	84	1	0.9%	1.6%	Otolaryngology (ENT)	11.19	14.25
42415	Excise parotid gland/lesion	126	1	0.9%	1.3%	Otolaryngology (ENT)	17.16	19.64
60254	Extensive thyroid surgery	216	2	4.6%	2.6%	Otolaryngology (ENT)	28.42	30.84
40812	Excise/repair mouth lesion	25	0	0.8%	0.8%	Otolaryngology (ENT)	2.37	4.54
42420	Excise parotid gland/lesion	143	1	1.2%	1.1%	Otolaryngology (ENT)	19.53	21.66
42700	Drainage of tonsil abscess	12	1	3.1%	1.5%	Otolaryngology (ENT)	1.67	3.68
60271	Removal of thyroid	123	1	2.3%	2.3%	Otolaryngology (ENT)	17.62	19.47
69631	Repair eardrum structures	75	0	0.1%	0.7%	Otolaryngology (ENT)	10.05	11.78
42831	Removal of adenoids	22	0	0.0%	1.9%	Otolaryngology (ENT)	2.81	4.27
41112	Excision of tongue lesion	19	0	0.4%	3.0%	Otolaryngology (ENT)	2.83	4.04
21390	Opn tx orbit periorbtl implt	78	0	1.9%	1.0%	Otolaryngology (ENT)	11.23	12.32
69610	Repair of eardrum	31.5	0	0.8%	0.8%	Otolaryngology (ENT)	4.47	5.55
69633	Rebuild eardrum structures	87	0	0.0%	0.4%	Otolaryngology (ENT)	12.31	13.34
42826	Removal of tonsils	20	0	3.7%	2.6%	Otolaryngology (ENT)	3.45	4.09
42821	Remove tonsils and adenoids	23	0	3.8%	2.7%	Otolaryngology (ENT)	4.36	4.57
60225	Partial removal of thyroid	88	1	0.0%	2.3%	Otolaryngology (ENT)	14.79	14.88
69632	Rebuild eardrum structures	83	0	0.5%	0.0%	Otolaryngology (ENT)	12.96	12.75
42145	Repair palate pharynx/uvula	44	1	2.8%	2.8%	Otolaryngology (ENT)	9.78	8.80
38724	Removal of lymph nodes neck	148	1	3.6%	5.3%	Otolaryngology (ENT)	23.95	22.87
60252	Removal of thyroid	130	1	1.4%	3.2%	Otolaryngology (ENT)	22.01	20.50
60500	Explore parathyroid glands	82	0	0.7%	2.4%	Otolaryngology (ENT)	15.60	13.11
41120	Partial removal of tongue	48	0	2.0%	3.1%	Otolaryngology (ENT)	11.14	8.45
60260	Repeat thyroid surgery	78.5	1	0.4%	1.8%	Otolaryngology (ENT)	18.26	13.51
19361	Breast reconstr w/lat flap	220	2	4.6%	2.3%	Plastics	23.36	31.17
19316	Suspension of breast	122	0	1.7%	1.7%	Plastics	11.09	18.24
19300	Removal of breast tissue	74	0	1.7%	1.1%	Plastics	5.31	11.79
19364	Breast reconstruction	449	4	11.0%	4.3%	Plastics	42.58	47.13
19318	Reduction of large breast	152	0	1.8%	1.5%	Plastics	16.03	21.84
21462	Treat lower jaw fracture	102	1	5.9%	3.9%	Plastics	11.01	16.76
11042	Deb subq tissue 20 sq cm/<	30	1	6.5%	6.0%	Plastics	1.01	6.72
11043	Deb musc/fascia 20 sq cm/<	26	3	6.5%	12.9%	Plastics	2.70	8.26
20926	Removal of tissue for graft	65	0	0.5%	0.5%	Plastics	5.79	10.36
11044	Deb bone 20 sq cm/<	27	3	6.5%	10.8%	Plastics	4.10	8.58
15830	Exc skin abd	129	1	4.4%	6.3%	Plastics	17.11	20.61
19371	Removal of breast capsule	81	0	2.5%	3.5%	Plastics	10.62	13.18

15734	Muscle-skin graft trunk	125	3	8.2%	7.5%	Plastics	19.86	21.83
26735	Treat finger fracture each	55	0	2.1%	2.1%	Plastics	7.42	9.30
19380	Revise breast reconstruction	78	0	1.2%	0.8%	Plastics	10.41	12.27
19325	Enlarge breast with implant	65	0	0.9%	0.4%	Plastics	8.64	10.36
25111	Remove wrist tendon lesion	28	0	0.0%	0.6%	Plastics	3.53	4.93
26615	Treat metacarpal fracture	51	0	1.6%	0.5%	Plastics	7.07	8.40
19350	Breast reconstruction	63	0	0.0%	0.4%	Plastics	9.11	10.04
19328	Removal of breast implant	42	0	2.5%	0.5%	Plastics	6.48	7.06
19120	Removal of breast lesion	36	0	0.8%	1.6%	Plastics	5.92	6.38
19342	Delayed breast prosthesis	81	0	1.9%	2.9%	Plastics	12.63	13.09
26951	Amputation of finger/thumb	30	0	1.5%	7.6%	Plastics	6.04	6.20
26727	Treat finger fracture each	27	0	2.4%	1.6%	Plastics	5.42	5.04
26540	Repair hand joint	37	0	0.0%	0.0%	Plastics	6.60	6.14
25447	Repair wrist joints	65.5	0	0.0%	1.5%	Plastics	11.14	10.62
19340	Immediate breast prosthesis	80.5	0	3.9%	3.9%	Plastics	13.99	13.10
21390	Opn tx orbit periorbtl implt	56	0	2.9%	2.9%	Plastics	11.23	9.56
15260	Skin full graft een & lips	52	0	0.6%	1.7%	Plastics	11.64	8.76
19357	Breast reconstruction	87	0	4.3%	4.3%	Plastics	18.50	14.01
14301	Tis trnfr any 30.1-60 sq cm	48	0	0.0%	0.5%	Plastics	12.65	7.90
19366	Breast reconstruction	80	0	1.1%	2.6%	Plastics	21.84	12.89
32609	Thoracoscopy w/bx pleura	52	2	3.9%	12.5%	Thoracic	4.58	11.31
32505	Wedge resect of lung initial	108	4	1.8%	4.6%	Thoracic	15.75	21.39
32608	Thoracoscopy w/bx nodule	58	2	1.9%	6.1%	Thoracic	6.84	12.33
32607	Thoracoscopy w/bx infiltrate	43	2	1.4%	6.4%	Thoracic	5.50	10.15
43117	Partial removal of esophagus	310.5	9	14.2%	9.1%	Thoracic	43.65	46.64
32480	Partial removal of lung	154	5	5.5%	6.2%	Thoracic	25.82	28.27
32673	Thoracoscopy w/thymus resect	147.5	2	0.0%	2.8%	Thoracic	21.13	23.55
32662	Thoracoscopy w/mediast exc	94	2	0.8%	2.4%	Thoracic	14.99	16.81
32663	Thoracoscopy w/lobectomy	147	4	2.5%	5.4%	Thoracic	24.64	26.28
32650	Thoracoscopy w/pleurodesis	41	4	4.0%	11.9%	Thoracic	10.83	12.15
33025	Incision of heart sac	41.5	6	4.4%	12.5%	Thoracic	13.70	14.87
43280	Laparoscopy fundoplasty	117	1	1.8%	5.3%	Thoracic	18.10	19.14
32651	Thoracoscopy remove cortex	74	6	5.5%	12.7%	Thoracic	18.78	19.39
32666	Thoracoscopy w/wedge resect	65	2	1.1%	5.0%	Thoracic	14.50	13.20
32655	Thoracoscopy resect bullae	57	4	5.0%	5.6%	Thoracic	16.17	14.36
32669	Thoracoscopy remove segment	117	3	1.2%	4.0%	Thoracic	23.53	21.22
32220	Release of lung	108	6	0.9%	10.6%	Thoracic	26.65	24.33
43281	Lap paraesophag hern repair	139	2	2.5%	5.9%	Thoracic	26.60	22.97
32652	Thoracoscopy rem totl cortex	85	6	6.5%	7.9%	Thoracic	29.13	20.94
38780	Remove abdomen lymph nodes	281	4	0.0%	7.7%	Urology	17.70	39.58

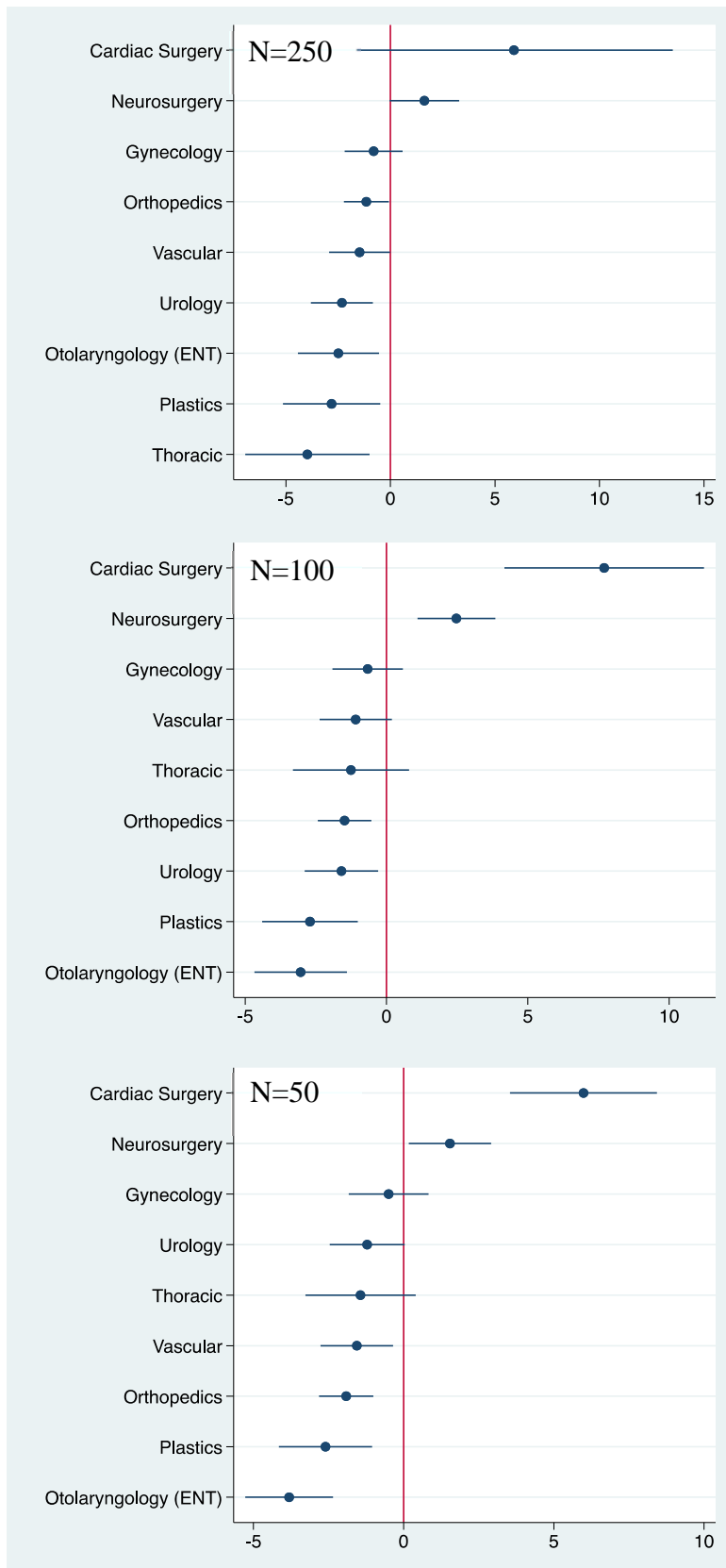
51590	Remove bladder/revise tract	303	7	5.0%	14.6%	Urology	36.33	44.95
55821	Removal of prostate	124	3	1.8%	4.8%	Urology	15.76	22.20
57425	Laparoscopy surg colpopexy	150	1	2.8%	3.7%	Urology	17.03	22.96
50548	Laparo remove w/ureter	201	3	3.6%	10.2%	Urology	25.36	31.09
50220	Remove kidney open	130	4	1.9%	6.7%	Urology	18.68	24.35
50234	Removal of kidney & ureter	172.5	4	3.5%	8.2%	Urology	24.05	29.32
55530	Revise spermatic cord veins	66	0	0.2%	0.1%	Urology	5.75	10.40
53410	Reconstruction of urethra	139	1	1.2%	3.5%	Urology	17.68	21.62
50230	Removal kidney open radical	155	4	1.4%	7.3%	Urology	23.81	27.36
50240	Partial removal of kidney	159	4	4.0%	6.6%	Urology	24.21	27.70
55100	Drainage of scrotum abscess	15	2	1.9%	2.3%	Urology	2.45	5.40
55831	Removal of prostate	103.5	3	4.8%	6.5%	Urology	17.19	19.59
53445	Insert uro/ves nck sphincter	86	1	2.5%	4.2%	Urology	13.00	14.95
54520	Removal of testis	38	0	1.9%	5.0%	Urology	5.30	7.23
52630	Remove prostate regrowth	38	1	2.6%	5.9%	Urology	6.55	8.29
51597	Removal of pelvic structures	310	7	6.6%	19.0%	Urology	42.86	44.30
52649	Prostate laser enucleation	93	1	2.1%	4.7%	Urology	14.56	15.95
50546	Laparoscopic nephrectomy	141	2	1.8%	5.6%	Urology	21.87	23.20
54840	Remove epididymis lesion	38	0	1.0%	0.9%	Urology	5.27	6.54
51595	Remove bladder/revise tract	289	7	5.5%	20.2%	Urology	41.32	42.56
55040	Removal of hydrocele	36	0	1.3%	1.7%	Urology	5.45	6.42
55842	Extensive prostate surgery	134	2	0.7%	4.3%	Urology	21.36	22.19
55840	Extensive prostate surgery	132	2	1.5%	6.3%	Urology	21.36	22.17
55110	Explore scrotum	38.5	0	5.6%	4.8%	Urology	6.33	7.03
53447	Remove/replace ur sphincter	86	1	1.8%	3.5%	Urology	14.28	14.87
51040	Incise & drain bladder	23	0	3.1%	11.1%	Urology	4.49	5.07
11004	Debride genitalia & perineum	36	5	11.2%	7.8%	Urology	10.80	11.37
52341	Cysto w/ureter stricture tx	28.5	0	3.8%	7.6%	Urology	5.35	5.91
50544	Laparoscopy pyeloplasty	148	2	2.6%	3.8%	Urology	23.37	23.81
60650	Laparoscopy adrenalectomy	126	2	1.6%	3.1%	Urology	20.73	21.06
55060	Repair of hydrocele	35	0	1.6%	2.0%	Urology	6.15	6.34
52240	Cystoscopy and treatment	39	0	2.9%	9.0%	Urology	7.50	7.56
55866	Laparo radical prostatectomy	184	1	1.4%	3.5%	Urology	26.80	26.75
52235	Cystoscopy and treatment	25	0	2.4%	6.4%	Urology	5.44	5.38
55041	Removal of hydroceles	46.5	0	2.3%	4.6%	Urology	8.54	8.43
54640	Suspension of testis	43	0	0.5%	2.1%	Urology	7.73	7.50
52640	Relieve bladder contracture	20	0	0.9%	5.7%	Urology	4.79	4.54
57240	Repair bladder & vagina	59.5	1	1.9%	3.8%	Urology	11.50	11.21
55845	Extensive prostate surgery	155	2	2.2%	5.5%	Urology	25.18	24.84
52234	Cystoscopy and treatment	18	0	1.6%	5.0%	Urology	4.62	4.18

54530	Removal of testis	46	0	1.1%	2.4%	Urology	8.46	8.02
55873	Cryoablate prostate	80	0	1.3%	3.6%	Urology	13.60	13.05
52354	Cystouretero w/biopsy	38	0	2.8%	11.5%	Urology	8.00	7.33
54860	Removal of epididymis	33	0	1.1%	2.1%	Urology	6.95	6.05
52344	Cysto/uretero stricture tx	30	0	4.4%	6.8%	Urology	7.05	6.06
54600	Reduce testis torsion	38	0	0.0%	0.7%	Urology	7.64	6.46
50543	Laparo partial nephrectomy	166	2	1.7%	4.5%	Urology	27.41	25.99
50545	Laparo radical nephrectomy	141	2	1.9%	5.3%	Urology	25.06	23.16
52648	Laser surgery of prostate	47	0	1.3%	5.8%	Urology	12.15	8.63
53440	Male sling procedure	60	0	3.4%	1.3%	Urology	13.36	9.81
52500	Revision of bladder neck	21	0	0.2%	4.1%	Urology	8.14	4.49
51596	Remove bladder/create pouch	360.5	7	6.1%	33.1%	Urology	44.26	41.02
52601	Prostatectomy (turp)	48	1	2.1%	5.7%	Urology	15.26	9.76
57288	Repair bladder defect	28	0	1.1%	1.4%	Urology	12.13	5.16
50947	Laparo new ureter/bladder	46	1	2.9%	4.9%	Urology	25.78	9.37
21705	Revision of neck muscle/rib	117	2	3.6%	3.6%	Vascular	9.92	19.96
27882	Amputation of lower leg	27	11	12.5%	15.7%	Vascular	9.79	18.64
21615	Removal of rib	107.5	1	2.3%	0.9%	Vascular	10.45	17.23
35371	Rechanneling of artery	133	2	7.7%	10.4%	Vascular	15.31	21.76
27889	Amputation of foot at ankle	21	10	11.9%	5.9%	Vascular	10.86	16.65
27886	Amputation follow-up surgery	62	5	8.3%	13.3%	Vascular	10.02	15.74
11042	Deb subq tissue 20 sq cm/<	19	3	8.7%	13.7%	Vascular	1.01	6.64
35372	Rechanneling of artery	158.5	2	9.0%	13.5%	Vascular	18.58	24.20
35621	Art byp axillary-femoral	164	5	16.3%	12.7%	Vascular	21.03	25.89
35903	Excision graft extremity	64	4	6.8%	16.7%	Vascular	9.53	14.44
35151	Repair defect of artery	176	3	4.8%	7.2%	Vascular	23.72	28.32
11043	Deb musc/fascia 20 sq cm/<	21	4	11.5%	14.5%	Vascular	2.70	7.23
35666	Art byp fem-ant-post tib/prl	200	5	17.0%	19.5%	Vascular	23.66	28.07
35556	Art byp grft fem-popliteal	206	4	10.8%	13.3%	Vascular	26.75	31.25
49421	Ins tun ip cath for dial opn	45	0	1.5%	8.0%	Vascular	4.21	8.46
35876	Removal of clot in graft	142	4	16.3%	13.2%	Vascular	17.82	21.94
11044	Deb bone 20 sq cm/<	24	4	9.5%	15.4%	Vascular	4.10	8.19
37700	Revise leg vein	45	0	0.0%	1.6%	Vascular	3.82	7.69
35646	Art byp aortobifemoral	236	6	12.0%	8.9%	Vascular	32.98	36.71
37220	Iliac revasc	65	0	5.8%	10.1%	Vascular	7.90	11.06
35665	Art byp iliofemoral	163	3	11.5%	12.6%	Vascular	22.35	25.25
35656	Art byp femoral-popliteal	147	3	11.5%	13.7%	Vascular	20.47	23.26
34825	Endovasc extend prosth init	90	1	3.5%	4.7%	Vascular	12.80	15.51
37224	Fem/popl revas w/tla	67	0	6.9%	10.2%	Vascular	8.75	11.17
37226	Fem/popl revasc w/stent	76	0	6.1%	11.0%	Vascular	10.24	12.51

35661	Art byp femoral-femoral	129	3	7.2%	10.8%	Vascular	20.35	22.49
49505	Prp i/hern init reduc >5 yr	62	0	0.0%	0.9%	Vascular	7.96	10.01
37722	Ligate/strip long leg vein	61	0	0.5%	1.9%	Vascular	8.16	10.08
35081	Repair defect of artery	193	7	6.3%	6.2%	Vascular	33.53	35.36
35638	Art byp aortobi-iliac	217	6	10.5%	9.5%	Vascular	33.60	35.42
35606	Art byp carotid-subclavian	154	2	6.9%	12.8%	Vascular	22.46	24.22
35654	Art byp axill-fem-femoral	202.5	5	18.1%	18.5%	Vascular	26.28	27.96
27880	Amputation of lower leg	65	6	9.4%	14.7%	Vascular	15.37	17.09
35102	Repair defect of artery	230	7	9.1%	4.1%	Vascular	36.53	38.24
34101	Removal of artery clot	58	3	9.2%	8.9%	Vascular	10.93	12.64
35091	Repair defect of artery	213	7	8.7%	5.8%	Vascular	35.35	36.89
37225	Fem/popl revas w/ather	78	1	9.0%	12.1%	Vascular	11.75	13.13
27590	Amputate leg at thigh	55	5	6.6%	15.0%	Vascular	13.47	14.84
37607	Ligation of a-v fistula	39	0	3.7%	10.0%	Vascular	6.25	7.51
35355	Rechanneling of artery	131	2	8.7%	13.4%	Vascular	19.86	21.05
37228	Tib/per revasc w/tla	78	1	9.2%	18.8%	Vascular	10.75	11.90
35571	Art byp pop-tibl-prl-other	220	5	21.0%	22.8%	Vascular	25.52	26.56
37227	Fem/popl revasc stnt & ather	97	0	5.5%	5.8%	Vascular	14.25	15.37
27596	Amputation follow-up surgery	47	4	8.7%	9.4%	Vascular	11.29	12.41
35566	Art byp fem-ant-post tib/prl	252	5	17.3%	17.2%	Vascular	32.35	33.41
37221	Iliac revasc w/stent	62	0	4.8%	9.1%	Vascular	9.75	10.78
36475	Endovenous rf 1st vein	35	0	0.3%	1.9%	Vascular	5.30	6.28
36478	Endovenous laser 1st vein	36	0	0.3%	1.2%	Vascular	5.30	6.27
49324	Lap insert tunnel ip cath	36	0	4.3%	7.1%	Vascular	6.32	6.98
35558	Art byp grft fem-femoral	133	3	7.6%	9.7%	Vascular	23.13	22.95
35583	Vein byp grft fem-popliteal	167	4	9.9%	11.2%	Vascular	27.75	27.55
37765	Stab phleb veins xtr 10-20	43	0	0.1%	1.0%	Vascular	7.71	7.28
47562	Laparoscopic cholecystectomy	58	0	0.8%	3.9%	Vascular	10.47	9.99
35302	Rechanneling of artery	131	2	10.2%	12.4%	Vascular	21.35	20.73
44970	Laparoscopy appendectomy	45	1	0.0%	0.7%	Vascular	9.45	8.48
49422	Remove tunneled ip cath	24	0	2.5%	9.3%	Vascular	6.29	5.30
37766	Phleb veins - extrem 20+	53	0	0.4%	0.4%	Vascular	9.66	8.62
35875	Removal of clot in graft	89	3	21.4%	19.3%	Vascular	10.72	9.66
35883	Revise graft w/nonauto graft	138	3	12.5%	13.4%	Vascular	23.15	21.87
49560	Rpr ventral hern init reduc	61	0	1.0%	5.7%	Vascular	11.92	10.64
35141	Repair defect of artery	128	2	12.6%	16.0%	Vascular	20.91	19.03
35585	Vein byp fem-tibial peroneal	214	5	16.7%	17.1%	Vascular	32.35	30.22
34203	Removal of leg artery clot	103	5	19.9%	17.0%	Vascular	17.86	15.70
28805	Amputation thru metatarsal	39	6	16.2%	18.2%	Vascular	12.71	9.97
35301	Rechanneling of artery	106	1	3.1%	7.0%	Vascular	21.16	17.83

34800	Endovas aaa repr w/sm tube	109	1	4.0%	7.4%	Vascular	21.54	18.18
37215	Transcath stent cca w/eps	75.5	1	2.6%	6.7%	Vascular	17.75	13.75
37229	Tib/per revasc w/ather	64	1	11.1%	18.1%	Vascular	13.80	9.55
34201	Removal of artery clot	77	4	13.3%	14.6%	Vascular	19.48	14.74
36838	Dist revas ligation hemo	120	0	10.9%	15.4%	Vascular	21.69	16.69
35011	Repair defect of artery	79.5	1	8.0%	14.5%	Vascular	18.58	13.29
49561	Rpr ventral hern init block	56	0	0.9%	0.9%	Vascular	15.38	9.18
34802	Endovas aaa repr w/2-p part	103	1	3.1%	7.1%	Vascular	23.79	17.45
34804	Endovas aaa repr w/1-p part	97.5	1	2.3%	7.9%	Vascular	23.79	16.78
34803	Endovas aaa repr w/3-p part	100	1	4.6%	6.4%	Vascular	24.82	16.91
35082	Repair artery rupture aorta	169	7	11.0%	3.8%	Vascular	42.09	31.39
33881	Endovasc taa repr w/o subcl	89	3	5.6%	8.1%	Vascular	29.58	17.64
33880	Endovasc taa repr incl subcl	90	3	6.4%	8.3%	Vascular	34.58	17.66

eFigure 1. Changing the Sample Size Threshold Required to Include a Procedure in the Regression Model



eFigure 2. Negative Binomial Regression

