

**Appendix C. Observed to Expected Ratio of Post-Operative Visits for All Procedures**

HCPCS	Short Description	Global Period	Study Sample				High-Volume Providers				Robust Reporters			
			Procedures	Observed Post-Operative Visits	Expected Post-Operative Visits	Ratio of Observed to Expected	Procedures	Observed Post-Operative Visits	Expected Post-Operative Visits	Ratio of Observed to Expected	Procedures	Observed Post-Operative Visits	Expected Post-Operative Visits	Ratio of Observed to Expected
17000	Destruct premlag lesion	10	501,590	3,929	501,590	0.01	54,124	736	54,124	0.01	32,197	636	32,197	0.02
17110	Destruct b9 lesion 1-14	10	130,138	1,045	130,138	0.01	12,586	196	12,586	0.02	8,037	182	8,037	0.02
17004	Destroy preml lesions 15/>	10	67,789	483	67,789	0.01	9,144	97	9,144	0.01	5,083	82	5,083	0.02
64635	Destroy lumb/sac facet jnt	10	34,579	607	51,869	0.01	209	3	314	0.01	88	2	132	0.02
10060	Drainage of skin abscess	10	26,075	3,721	26,075	0.14	3,539	1,262	3,539	0.36	2,720	1,195	2,720	0.44
13132	Cmplx rpr f/c/c/m/n/ax/g/h/f	10	23,756	6,895	23,756	0.29	21,563	6,333	21,563	0.29	11,929	5,951	11,929	0.50
17262	Destruction of skin lesions	10	16,294	419	16,294	0.03	2,166	94	2,166	0.04	1,546	89	1,546	0.06
36561	Insert tunneled cv cath	10	14,615	957	21,923	0.04	4,981	645	7,472	0.09	4,083	633	6,125	0.10
36558	Insert tunneled cv cath	10	13,095	1,231	19,643	0.06	2,645	459	3,968	0.12	1,891	427	2,837	0.15
10061	Drainage of skin abscess	10	12,394	2,791	24,788	0.11	2,242	1,182	4,484	0.26	1,763	1,160	3,526	0.33
46221	Ligation of hemorrhoid(s)	10	10,498	135	10,498	0.01	2,500	87	2,500	0.03	2,255	84	2,255	0.04
13121	Cmplx rpr s/a/l 2.6-7.5 cm	10	10,090	1,647	10,090	0.16	9,123	1,437	9,123	0.16	4,739	1,228	4,739	0.26
64633	Destroy cerv/thor facet jnt	10	9,410	150	14,115	0.01	60	0	90	0.00	27	0	41	0.00
65855	Trabeculoplasty laser surg	10	9,018	977	9,018	0.11	8,781	962	8,781	0.11	6,949	944	6,949	0.14
68761	Close tear duct opening	10	8,525	234	8,525	0.03	6,110	188	6,110	0.03	4,935	174	4,935	0.04
36589	Removal tunneled cv cath	10	8,306	570	12,459	0.05	2,071	194	3,107	0.06	1,580	185	2,370	0.08
64612	Destroy nerve face muscle	10	6,909	46	6,909	0.01	3,204	26	3,204	0.01	2,790	22	2,790	0.01
17261	Destruction of skin lesions	10	6,866	113	6,866	0.02	980	12	980	0.01	669	9	669	0.01
11750	Removal of nail bed	10	6,731	872	6,731	0.13	2,111	263	2,111	0.12	1,704	227	1,704	0.13
36590	Removal tunneled cv cath	10	6,263	509	9,395	0.05	2,626	404	3,939	0.10	2,191	396	3,287	0.12
17111	Destruct lesion 15 or more	10	5,503	35	5,503	0.01	460	2	460	0.00	229	2	229	0.01
11200	Removal of skin tags <w/15	10	4,696	51	4,696	0.01	349	20	349	0.06	249	20	249	0.08
10160	Puncture drainage of lesion	10	4,671	538	4,671	0.12	612	158	612	0.26	451	144	451	0.32
69433	Create eardrum opening	10	4,368	164	4,368	0.04	504	17	504	0.03	344	16	344	0.05
13152	Cmplx rpr e/n/e/l 2.6-7.5 cm	10	4,220	1,389	4,220	0.33	3,875	1,261	3,875	0.33	2,103	1,207	2,103	0.57
66761	Revision of iris	10	4,033	956	8,066	0.12	3,863	938	7,726	0.12	2,942	901	5,884	0.15
36581	Replace tunneled cv cath	10	3,808	214	5,712	0.04	680	78	1,020	0.08	471	67	707	0.09
22514	Perq vertebral augmentation	10	3,695	694	5,543	0.13	1,729	510	2,594	0.20	1,502	505	2,253	0.22
10120	Remove foreign body	10	3,676	161	3,676	0.04	434	76	434	0.18	330	73	330	0.22
67228	Treatment x10sv retinopathy	10	3,669	130	3,669	0.04	3,417	121	3,417	0.04	2,389	102	2,389	0.04
22513	Perq vertebral augmentation	10	3,638	682	5,457	0.12	1,748	500	2,622	0.19	1,560	496	2,340	0.21
12052	Intmd rpr face/mm 2.6-5.0 cm	10	3,368	942	3,368	0.28	2,060	813	2,060	0.39	1,378	730	1,378	0.53
13131	Cmplx rpr f/c/c/m/n/ax/g/h/f	10	3,325	963	3,325	0.29	2,718	816	2,718	0.30	1,525	788	1,525	0.52
17272	Destruction of skin lesions	10	3,191	52	3,191	0.02	443	12	443	0.03	296	12	296	0.04
12032	Intmd rpr s/a/l/ext 2.6-7.5	10	3,024	284	3,024	0.09	1,481	153	1,481	0.10	942	139	942	0.15
13151	Cmplx rpr e/n/e/l 1.1-2.5 cm	10	2,886	1,005	2,886	0.35	2,446	856	2,446	0.35	1,402	818	1,402	0.58
10040	Acne surgery	10	2,811	39	2,811	0.01	254	15	254	0.06	173	12	173	0.07
10140	Drainage of hematoma/fluid	10	2,789	961	2,789	0.34	1,008	658	1,008	0.65	813	630	813	0.77
12051	Intmd rpr face/mm 2.5 cm/<	10	2,784	822	2,784	0.30	1,773	715	1,773	0.40	1,258	682	1,258	0.54
17263	Destruction of skin lesions	10	2,629	90	2,629	0.03	354	26	354	0.07	259	26	259	0.10
67840	Remove eyelid lesion	10	2,469	235	2,469	0.10	2,213	187	2,213	0.08	1,582	179	1,582	0.11
17282	Destruction of skin lesions	10	2,317	30	2,317	0.01	271	4	271	0.01	156	4	156	0.03
17281	Destruction of skin lesions	10	2,167	27	2,167	0.01	330	7	330	0.02	129	6	129	0.05
49440	Place gastrostomy tube perc	10	2,144	147	2,144	0.07	67	21	67	0.31	34	21	34	0.62
68840	Explore/irrigate tear ducts	10	2,129	46	2,129	0.02	1,910	44	1,910	0.02	1,528	43	1,528	0.03
11402	Exc tr-ext b9+marg 1.1-2 cm	10	1,968	304	1,968	0.15	849	164	849	0.19	668	163	668	0.24
11401	Exc tr-ext b9+marg 0.6-1 cm	10	1,871	204	1,871	0.11	472	88	472	0.19	354	88	354	0.25
17271	Destruction of skin lesions	10	1,751	37	1,751	0.02	297	6	297	0.02	201	5	201	0.02
11602	Exc tr-ext mal+marg 1.1-2 cm	10	1,688	185	1,688	0.11	534	90	534	0.17	371	88	371	0.24
13101	Cmplx rpr trunk 2.6-7.5 cm	10	1,604	205	1,604	0.13	1,373	150	1,373	0.11	757	139	757	0.18
64640	Injection treatment of nerve	10	1,585	32	1,585	0.02	53	7	53	0.13	43	7	43	0.16
12042	Intmd rpr n-hf/genit2.6-7.5	10	1,572	170	1,572	0.11	856	117	856	0.14	534	101	534	0.19
69420	Incision of eardrum	10	1,522	53	1,522	0.03	92	2	92	0.02	59	1	59	0.02
37609	Temporal artery procedure	10	1,418	328	2,127	0.15	1,180	287	1,770	0.16	929	281	1,394	0.20
67800	Remove eyelid lesion	10	1,391	85	696	0.12	1,270	73	635	0.11	862	71	431	0.16
64561	Implant neuroelectrodes	10	1,254	645	1,254	0.51	774	432	774	0.56	562	406	562	0.72
69436	Create eardrum opening	10	1,087	92	1,087	0.08	161	19	161	0.12	104	19	104	0.18
68810	Probe nasolacrimal duct	10	1,041	113	1,041	0.11	661	112	661	0.17	526	108	526	0.21
11440	Exc face-mm b9+marg 0.5 cm/<	10	1,030	137	1,030	0.13	619	56	619	0.09	484	53	484	0.11
11403	Exc tr-ext b9+marg 2.1-3cm/<	10	1,028	204	1,028	0.20	620	136	620	0.22	516	134	516	0.26
11603	Exc tr-ext mal+marg 2.1-3 cm	10	1,006	157	1,006	0.16	431	79	431	0.18	318	79	318	0.25
12031	Intmd rpr s/a/l/ext 2.5 cm/<	10	1,005	80	1,005	0.08	424	47	424	0.11	249	43	249	0.17
58661	Laparoscopy remove adnexa	10	987	260	1,481	0.18	142	71	213	0.33	111	70	167	0.42
54161	Circum 28 days or older	10	980	180	980	0.18	706	129	706	0.18	526	123	526	0.23
46500	Injection into hemorrhoid(s)	10	979	15	979	0.02	74	1	74	0.01	73	1	73	0.01
11400	Exc tr-ext b9+marg 0.5 cm/<	10	909	99	909	0.11	178	38	178	0.21	131	38	131	0.29
17260	Destruction of skin lesions	10	903	14	903	0.02	181	4	181	0.02	154	3	154	0.02
12041	Intmd rpr n-hf/genit 2.5cm/<	10	895	80	895	0.09	246	37	246	0.15	130	34	130	0.26
11642	Exc f/e/e/n/l mal+mrg 1.1-2	10	871	220	871	0.25	398	116	398	0.29	242	108	242	0.45
11422	Exc h-f-nk-sp b9+marg 1.1-2	10	848	159	848	0.19	407	88	407	0.22	308	88	308	0.29
12034	Intmd rpr s/tr/ext 7.6-12.5	10	785	67	785	0.09	123	30	123	0.24	89	28	89	0.31
64632	N block inj common digit	10	782	4	782	0.01	221	1	221	0.00	203	1	203	0.00
11441	Exc face-mm b9+marg 0.6-1 cm	10	758	174	758	0.23	384	70	384	0.18	256	68	256	0.27
63650	Implant neuroelectrodes	10	757	294	1,136	0.26	61	26	92	0.28	49	26	74	0.35
17280	Destruction of skin lesions	10	701	8	701	0.01	109	1	109	0.01	58	1	58	0.02
40808	Biopsy of mouth lesion	10	694	46	694	0.07	65	8	65	0.12	51	8	51	0.16
11421	Exc h-f-nk-sp b9+marg 0.6-1	10	673	122	673	0.18	236	43	236	0.18	177	42	177	0.24
11765	Excision of nail fold toe	10	611	10	611	0.02	249	2	249	0.01	248	2	248	0.01
11406	Exc tr-ext b9+marg >4.0 cm	10	595	183	595	0.31	444	154	444	0.35	351	147	351	0.42
11622	Exc s/n/h/f/g mal+mrg 1.1-2	10	549	97	549	0.18	179	41	179	0.23	130	41	130	0.32
11601	Exc tr-ext mal+marg 0.6-1 cm	10	542	56	542	0.10	109	15	109	0.14	63	15	63	0.24
63685	Insrt/redo spine n generator	10	528	131	792	0.17	202	30	303	0.10	160	28	240	0.12
17273	Destruction of skin lesions	10	525	6	525	0.01	85	2	85	0.02	60	2	60	0.03
11606	Exc tr-ext mal+marg >4 cm	10	512	145	512	0.28	325	103	325	0.32	263	100	263	0.38
11420	Exc h-f-nk-sp b9+marg 0.5/<	10	502	57	502	0.11	109	19	109	0.17	77	18	77	0.23
11641	Exc f/e/e/n/l mal+mrg 0.6-1	10	501	117	501	0.23	213	38	213	0.18	109	38	109	0.35
68801	Dilate tear duct opening	10	478	4	478	0.01	427	4	427	0.01	3			

47562	Laparoscopic cholecystectomy	90	12,017	15,538	42,060	0.37	10,965	14,205	38,378	0.37	8,906	13,771	31,171	0.44
64721	Carpal tunnel surgery	90	9,604	13,252	33,614	0.39	9,394	12,955	32,879	0.39	7,505	12,595	26,268	0.48
33533	Cabg arterial single	90	8,276	33,630	66,208	0.51	7,978	32,437	63,824	0.51	6,664	32,000	53,312	0.60
27236	Treat thigh fracture	90	8,158	17,295	65,264	0.27	8,001	16,996	64,008	0.27	6,416	16,616	51,328	0.32
23472	Reconstruct shoulder joint	90	7,832	19,408	62,656	0.31	7,744	19,169	61,952	0.31	6,613	18,826	52,904	0.36
66982	Cataract surgery complex	90	6,723	17,724	30,254	0.59	6,691	17,632	30,110	0.59	5,002	16,931	22,509	0.75
63047	Remove spine lamina 1 Imbr	90	6,608	12,675	39,648	0.32	6,262	12,000	37,572	0.32	5,066	11,758	30,396	0.39
14060	Tis trnfr e/n/e/l 10 sq cm/<	90	6,481	5,606	25,924	0.22	6,134	5,252	24,536	0.21	3,597	4,784	14,388	0.33
50590	Fragmenting of kidney stone	90	6,354	5,901	22,239	0.27	5,486	5,187	19,201	0.27	3,890	4,855	13,615	0.36
52601	Prostatectomy (turp)	90	6,100	9,597	15,250	0.63	4,831	7,526	12,078	0.62	3,539	7,037	8,848	0.80
29881	Knee arthroscopy/surgery	90	5,820	8,803	20,370	0.43	5,633	8,487	19,716	0.43	4,547	8,294	15,915	0.52
26055	Incise finger tendon sheath	90	5,641	6,868	19,744	0.35	5,509	6,729	19,282	0.35	4,546	6,567	15,911	0.41
33249	Insj/rplcmnt defib w/lead(s)	90	5,116	5,072	15,348	0.33	5,004	5,021	15,012	0.33	2,386	4,029	7,158	0.56
49505	Prp i/hern init reduc >5 yr	90	5,044	5,691	12,610	0.45	4,751	5,382	11,878	0.45	4,047	5,288	10,118	0.52
25600	Treat fracture radius/ulna	90	4,934	9,332	24,670	0.38	4,448	8,488	22,240	0.38	3,574	8,310	17,870	0.47
47563	Laparo cholecystectomy/graph	90	4,766	6,266	11,915	0.53	4,511	5,935	11,278	0.53	3,782	5,803	9,455	0.61
49650	Lap ing hernia repair init	90	4,737	5,251	9,474	0.55	4,598	5,095	9,196	0.55	3,895	5,002	7,790	0.64
35301	Rechannelling of artery	90	4,524	7,620	22,620	0.34	4,369	7,371	21,845	0.34	3,470	7,125	17,350	0.41
22551	Neck spine fuse&remov bel c2	90	4,343	8,315	21,715	0.38	4,062	7,742	20,310	0.38	3,170	7,563	15,850	0.48
29880	Knee arthroscopy/surgery	90	4,099	6,710	14,347	0.47	3,968	6,427	13,888	0.46	3,259	6,298	11,407	0.55
23600	Treat humerus fracture	90	4,041	7,302	16,164	0.45	3,691	6,659	14,764	0.45	3,054	6,476	12,216	0.53
33228	Remv&replc pm gen dual lead	90	3,460	2,232	5,190	0.43	3,274	2,128	4,911	0.43	1,672	1,690	2,508	0.67
14040	Tis trnfr f/c/c/m/n/a/g/h/f	90	3,434	2,787	13,736	0.20	3,205	2,549	12,820	0.20	1,886	2,320	7,544	0.31
14041	Tis trnfr f/c/c/m/n/a/g/h/f	90	3,242	2,230	12,968	0.17	3,127	2,110	12,508	0.17	1,458	1,876	5,832	0.32
15260	Skin full graft een & lips	90	3,233	3,959	16,165	0.24	3,138	3,825	15,690	0.24	1,769	3,403	8,845	0.38
15823	Revision of upper eyelid	90	3,053	4,571	13,739	0.33	2,981	4,476	13,415	0.33	2,468	4,306	11,106	0.39
36821	Av fusion direct any site	90	2,923	3,926	7,308	0.54	2,877	3,870	7,193	0.54	2,116	3,751	5,290	0.71
28470	Treat metatarsal fracture	90	2,862	3,457	8,586	0.40	2,369	2,864	7,107	0.40	1,834	2,806	5,502	0.51
44970	Laparoscopy appendectomy	90	2,760	4,558	11,040	0.41	2,437	3,996	9,748	0.41	2,030	3,902	8,120	0.48
29848	Wrist endoscopy/surgery	90	2,690	3,512	8,070	0.44	2,647	3,447	7,941	0.43	2,285	3,417	6,855	0.50
27786	Treatment of ankle fracture	90	2,542	4,153	8,897	0.47	2,208	3,602	7,728	0.47	1,811	3,546	6,339	0.56
14061	Tis trnfr e/n/e/l10.1-30sqcm	90	2,478	2,488	11,151	0.22	2,403	2,382	10,814	0.22	1,408	2,174	6,336	0.34
63030	Low back disk surgery	90	2,419	3,994	14,514	0.28	2,285	3,800	13,710	0.28	1,813	3,695	10,878	0.34
52648	Laser surgery of prostate	90	2,390	3,241	7,170	0.45	2,088	2,739	6,264	0.44	1,437	2,507	4,311	0.58
20680	Removal of support implant	90	2,382	4,091	5,955	0.69	2,093	3,609	5,233	0.69	1,760	3,548	4,400	0.81
19301	Partial mastectomy	90	2,329	2,996	8,152	0.37	2,037	2,626	7,130	0.37	1,682	2,577	5,887	0.44
67210	Treatment of retinal lesion	90	2,308	895	6,924	0.13	2,256	883	6,768	0.13	1,172	763	3,516	0.22
67145	Treatment of retina	90	2,217	2,393	6,651	0.36	2,096	2,259	6,288	0.36	1,566	2,072	4,698	0.44
27446	Revision of knee joint	90	2,192	4,452	13,152	0.34	2,184	4,434	13,104	0.34	1,907	4,389	11,442	0.38
27235	Treat thigh fracture	90	2,150	5,021	22,575	0.22	2,101	4,921	22,061	0.22	1,730	4,809	18,165	0.26
29827	Arthroscop rotator cuff repr	90	2,062	4,447	11,341	0.39	2,007	4,340	11,039	0.39	1,651	4,254	9,081	0.47
22633	Lumbar spine fusion combined	90	2,053	5,167	14,371	0.36	1,975	4,938	13,825	0.36	1,589	4,873	11,123	0.44
27487	Revise/replace knee joint	90	2,031	5,526	20,310	0.27	2,023	5,508	20,230	0.27	1,729	5,445	17,290	0.31
14301	Tis trnfr any 30.1-60 sq cm	90	1,841	2,168	8,285	0.26	1,706	1,931	7,677	0.25	903	1,743	4,064	0.43
67904	Repair eyelid defect	90	1,776	2,814	7,992	0.35	1,752	2,781	7,884	0.35	1,407	2,668	6,332	0.42
36830	Artery-vein nonautograft	90	1,743	2,565	4,358	0.59	1,704	2,496	4,260	0.59	1,311	2,383	3,278	0.73
33264	Rmvl & rplcmnt dfb gen mlt ld	90	1,733	1,451	2,600	0.56	1,695	1,361	2,543	0.54	786	1,097	1,179	0.93
60500	Explore parathyroid glands	90	1,712	1,890	5,992	0.32	1,420	1,550	4,970	0.31	1,150	1,508	4,025	0.37
25609	Treat fx radial 3+ frag	90	1,699	3,878	11,044	0.35	1,672	3,818	10,868	0.35	1,328	3,738	8,632	0.43
49560	Rpr ventral hern init reduc	90	1,636	3,047	4,090	0.74	1,511	2,806	3,778	0.74	1,315	2,749	3,288	0.84
67042	Vit for macular hole	90	1,636	4,140	8,998	0.46	1,624	4,099	8,932	0.46	1,190	3,713	6,545	0.57
36832	Av fistula revision open	90	1,628	2,318	5,698	0.41	1,584	2,256	5,544	0.41	1,197	2,166	4,190	0.52
30520	Repair of nasal septum	90	1,587	2,069	7,142	0.29	527	671	2,372	0.28	350	639	1,575	0.41
19125	Excision breast lesion	90	1,553	1,926	3,106	0.62	1,349	1,714	2,698	0.64	1,229	1,695	2,458	0.69
58571	Tlh w/to 250 g or less	90	1,502	2,108	3,755	0.56	412	668	1,030	0.65	327	656	818	0.80
33207	Insert heart pm ventricular	90	1,472	1,401	4,416	0.32	1,406	1,336	4,218	0.32	699	1,109	2,097	0.53
44205	Lap colectomy part w/ileum	90	1,420	4,291	12,780	0.34	1,255	3,842	11,295	0.34	1,078	3,784	9,702	0.39
34705	Evac rpr a-biliac ndgft	90	1,399	2,297	6,995	0.33	1,289	2,132	6,445	0.33	1,011	2,059	5,055	0.41
23500	Treat clavicle fracture	90	1,359	1,610	3,398	0.47	1,182	1,442	2,955	0.49	1,002	1,413	2,505	0.56
44120	Removal of small intestine	90	1,346	6,574	16,152	0.41	1,125	5,483	13,500	0.41	952	5,402	11,424	0.47
43281	Lap paraesophag hern repair	90	1,345	2,842	6,725	0.42	1,231	2,620	6,155	0.43	1,028	2,524	5,140	0.49
26600	Treat metacarpal fracture	90	1,339	1,748	5,356	0.33	1,199	1,533	4,796	0.32	967	1,500	3,868	0.39
14021	Tis trnfr s/a/l 10.1-30 sqcm	90	1,300	988	5,200	0.19	1,245	915	4,980	0.18	503	832	2,012	0.41
32663	Thoracoscopy w/lobectomy	90	1,283	4,728	8,981	0.53	1,113	4,218	7,791	0.54	995	4,162	6,965	0.60
44204	Laparo partial colectomy	90	1,263	3,863	10,104	0.38	1,116	3,356	8,928	0.38	928	3,321	7,424	0.45
28820	Amputation of toe	90	1,243	3,240	5,594	0.58	778	1,961	3,501	0.56	588	1,866	2,646	0.71
26160	Remove tendon sheath lesion	90	1,240	1,477	4,340	0.34	1,189	1,435	4,162	0.34	934	1,401	3,269	0.43
33263	Rmvl & rplcmnt dfb gen 2 lead	90	1,216	770	1,824	0.42	1,166	752	1,749	0.43	534	589	801	0.74
61510	Removal of brain lesion	90	1,155	2,814	12,705	0.22	911	2,166	10,021	0.22	715	2,113	7,865	0.27
49585	Rpr umbil hern reduc > 5 yr	90	1,112	1,347	2,780	0.48	1,035	1,276	2,588	0.49	902	1,255	2,255	0.56
44207	L colectomy/coloproctostomy	90	1,094	3,315	8,752	0.38	975	3,038	7,800	0.39	824	3,004	6,592	0.46
25605	Treat fracture radius/ulna	90	1,087	2,775	5,979	0.46	825	2,243	4,538	0.49	681	2,198	3,746	0.59
44140	Partial removal of colon	90	1,083	4,368	10,830	0.40	921	3,745	9,210	0.41	775	3,656	7,750	0.47
33405	Replacement aortic valve opn	90	1,077	4,343	9,693	0.45	1,034	4,179	9,306	0.45	891	4,110	8,019	0.51
67108	Repair detached retina	90	1,061	3,422	5,836	0.59	1,044	3,378	5,742	0.59	824	3,144	4,532	0.69
27134	Revise hip joint replacement	90	1,046	2,991	11,506	0.26	1,041	2,977	11,451	0.26	880	2,933	9,680	0.30
27486	Revise/replace knee joint	90	1,039	2,730	10,390	0.26	1,034	2,700	10,340	0.26	869	2,669	8,690	0.31
44160	Removal of colon	90	1,038	4,167	10,380	0.40	902	3,640	9,020	0.40	763	3,582	7,630	0.47
14020	Tis trnfr s/a/l 10 sq cm/<	90	1,028	892	4,112	0.22	955	819	3,820	0.21	504	749	2,016	0.37
57288	Repair bladder defect	90	996	1,328	4,482	0.30	591	783	2,660	0.29	463	733	2,084	0.35
49561	Rpr ventral hern init block	90	983	2,181	5,898	0.37	914	1,991	5,484	0.36	761	1,962	4,566	0.43
44005	Freeing of bowel adhesion	90	982	4,122	8,838	0.47	829	3,478	7,461	0.47	678	3,389		

33430	Replacement of mitral valve	90	522	2,629	5,220	0.50	506	2,501	5,060	0.49	449	2,489	4,490	0.55
22630	Lumbar spine fusion	90	495	1,409	3,960	0.36	477	1,372	3,816	0.36	435	1,365	3,480	0.39
67917	Repair eyelid defect	90	488	753	1,708	0.44	476	741	1,666	0.44	381	704	1,334	0.53
37607	Ligation of a-v fistula	90	480	625	960	0.65	450	609	900	0.68	356	579	712	0.81
25447	Repair wrist joints	90	476	1,053	2,618	0.40	472	1,044	2,596	0.40	356	1,033	1,958	0.53
67040	Laser treatment of retina	90	468	1,056	2,574	0.41	457	1,030	2,514	0.41	337	920	1,854	0.50
67924	Repair eyelid defect	90	464	636	1,624	0.39	455	617	1,593	0.39	348	576	1,218	0.47
38525	Biopsy/removal lymph nodes	90	453	546	1,133	0.48	387	468	968	0.48	322	455	805	0.57
28285	Repair of hammertoe	90	451	1,236	2,030	0.61	228	705	1,026	0.69	195	668	878	0.76
19307	Mast mod rad	90	441	1,488	4,631	0.32	387	1,305	4,064	0.32	352	1,296	3,696	0.35
44145	Partial removal of colon	90	437	1,758	4,370	0.40	381	1,594	3,810	0.42	341	1,582	3,410	0.46
29824	Shoulder arthroscopy/surgery	90	424	680	1,908	0.36	416	673	1,872	0.36	349	670	1,571	0.43
43644	Lap gastric bypass/roux-en-y	90	404	1,088	2,828	0.38	300	880	2,100	0.42	270	854	1,890	0.45
15120	Skn splnt a-grft fac/nck/hfl/g	90	368	734	1,288	0.57	287	497	1,005	0.49	140	397	490	0.81
63042	Laminotomy single lumbar	90	352	681	2,464	0.28	334	654	2,338	0.28	280	635	1,960	0.32
66170	Glaucoma surgery	90	352	1,803	3,344	0.54	346	1,770	3,287	0.54	271	1,668	2,575	0.65
19303	Mast simple complete	90	342	916	1,197	0.77	300	831	1,050	0.79	260	818	910	0.90
63056	Decompress spinal cord lmb	90	320	476	3,040	0.16	292	454	2,774	0.16	231	441	2,195	0.20
63045	Remove spine lamina 1 crvl	90	277	466	1,662	0.28	261	430	1,566	0.27	192	421	1,152	0.37
29822	Shoulder arthroscopy/surgery	90	275	521	1,100	0.47	274	518	1,096	0.47	232	510	928	0.55
23650	Treat shoulder dislocation	90	265	210	795	0.26	42	89	126	0.71	31	82	93	0.88
57240	Repair bladder & vagina	90	248	315	620	0.51	78	126	195	0.65	69	125	173	0.72
13160	Late closure of wound	90	237	545	1,778	0.31	176	404	1,320	0.31	144	388	1,080	0.36
67900	Repair brow defect	90	230	347	690	0.50	219	330	657	0.50	157	310	471	0.66
29876	Knee arthroscopy/surgery	90	223	343	781	0.44	215	336	753	0.45	169	324	592	0.55
28122	Partial removal of foot bone	90	218	601	981	0.61	141	426	635	0.67	113	415	509	0.82
38724	Removal of lymph nodes neck	90	213	397	1,704	0.23	88	166	704	0.24	67	151	536	0.28
28232	Incision of toe tendon	90	203	249	508	0.49	122	172	305	0.56	97	151	243	0.62
22612	Lumbar spine fusion	90	200	396	1,400	0.28	164	316	1,148	0.28	114	312	798	0.39
33426	Repair of mitral valve	90	191	778	1,719	0.45	186	763	1,674	0.46	164	752	1,476	0.51
33860	Ascending aortic graft	90	190	1,134	1,710	0.66	172	1,028	1,548	0.66	147	978	1,323	0.74
28296	Correction hallux valgus	90	182	463	1,001	0.46	88	267	484	0.55	79	261	435	0.60
23412	Repair rotator cuff chronic	90	174	396	783	0.51	167	382	752	0.51	142	378	639	0.59
28124	Partial removal of toe	90	147	378	588	0.64	97	263	388	0.68	73	253	292	0.87
53850	Prostatic microwave thermotx	90	132	105	396	0.27	122	97	366	0.27	40	80	120	0.67
28270	Release of foot contracture	90	121	81	424	0.19	90	51	315	0.16	18	44	63	0.70
66711	Ciliary endoscopic ablation	90	115	224	633	0.35	115	224	633	0.35	98	220	539	0.41
22600	Neck spine fusion	90	107	274	1,177	0.23	92	241	1,012	0.24	80	240	880	0.27
20926	Removal of tissue for graft	90	105	97	525	0.18	31	28	155	0.18	16	22	80	0.28
34710	Dlyd plmt xtn prosth 1st vsl	90	100	141	500	0.28	86	129	430	0.30	72	127	360	0.35
34706	Evasc rpr a-biliac rpt	90	76	151	684	0.22	69	141	621	0.23	50	122	450	0.27
66179	Aqueous shunt eye w/o graft	90	72	331	612	0.54	72	331	612	0.54	69	314	587	0.54
29828	Arthroscopy biceps tenodesis	90	67	123	302	0.41	64	117	288	0.41	53	114	239	0.48
23120	Partial removal collar bone	90	60	104	270	0.39	58	98	261	0.38	46	91	207	0.44
28308	Incision of metatarsal	90	58	154	232	0.66	37	94	148	0.64	27	93	108	0.86
15731	Forehead flap w/vasc pedicle	90	57	237	314	0.76	53	231	292	0.79	46	227	253	0.90
58575	Laps tot hyst resj mal	90	49	65	245	0.27	24	24	120	0.20	19	24	95	0.25
29879	Knee arthroscopy/surgery	90	45	65	158	0.41	39	52	137	0.38	33	50	116	0.43
15734	Muscle-skin graft trunk	90	35	129	350	0.37	19	76	190	0.40	17	55	170	0.32
19357	Breast reconstruction	90	35	160	420	0.38	10	41	120	0.34	8	41	96	0.43
63081	Remove vert body dcprn crvl	90	31	59	326	0.18	25	48	263	0.18	19	48	200	0.24
15730	Mdrc flap w/prsrv vasc pedcl	90	28	58	126	0.46	27	53	122	0.44	21	51	95	0.54
23430	Repair biceps tendon	90	26	59	117	0.50	22	53	99	0.54	18	52	81	0.64
22830	Exploration of spinal fusion	90	11	33	66	0.50	7	25	42	0.60	6	25	36	0.69
67255	Reinforce/graft eye wall	90	11	42	72	0.59	11	42	72	0.59	11	42	72	0.59

SOURCE: CMS IDR, October 14, 2020. The 99024-coded claims listed in this table were linked to clean procedures furnished from January 1, 2019, through December 31, 2019.

NOTE: Study sample comprises clean procedures that were linked to post-operative visits for practitioners in practices with ten or more practitioners in the nine states where reporting of post-operative visits was required.

*High-volume providers* includes procedures that met the following inclusion criteria: one of the clean procedure codes; performed from January 1, 2019, through December 31, 2019, for a Medicare FFS beneficiary; performed in one of the nine states in a practice with ten or more practitioners; and performed by practitioners who billed ten or more procedures with 90-day global periods from January 1, 2019, through December 31, 2019.

*Robust reporters* includes procedures that met the following inclusion criteria: one of the clean procedure codes, performed from January 1, 2019, through December 31, 2019, for a Medicare FFS beneficiary; performed in one of the nine states in a practice with ten or more practitioners; performed by practitioners who billed ten or more procedures with 90-day global periods from January 1, 2019, through December 31, 2019; and reported at least one claim for a post-operative visit for at least 50 percent of procedures performed during the study period.