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Appendix I - The top 50 orthopaedic surgical procedures in the VAPCD database

This table presents the raw numbers associated with the plot in Figure 1. CPT: current procedural terminology. n_{tot} : total procedures in the database for the period from 2013-2014. n_{naive} : total procedures on individuals not taking opioids preoperatively in the database for the period from 2013-2014. n_{μ} : total new individuals displaying long-term opioid prescription filling behavior in the database for the period from 2013-2014. R_{μ} : rate of new long-term opioid prescription filling behavior for the period from 2013-2014.

CPT Code	Procedure Description	n_{tot}	n_{naive}	n_{μ}	R_{μ}	95% CI
22558	Lumbar ALIF, single level	556	160	44	28%	21 – 35%
22612	Lumbar PSF, single level	1125	347	69	20%	16 – 24%
22633	Lumbar PLIF and PSF, single level	942	234	42	18%	13 – 23%
63042	Lumbar laminotomy, single level	641	216	33	15%	10 – 20%
63047	Lumbar laminectomy, single level	2348	737	103	14%	11 – 17%
22600	Cervical PSF	341	172	21	12%	7 – 17%
22551	ACDF, single level	2715	946	104	11%	9 – 13%
27447	Total knee arthroplasty	4284	1725	165	10%	9 – 11%
28750	First MTP fusion	367	194	17	9%	5 – 13%
63030	Lumbar discectomy	2271	895	83	9%	7 – 11%
63081	Cervical corpectomy	354	147	12	8%	4 – 12%
23412	Open rotator cuff repair	579	274	21	8%	5 – 11%
23472	Total shoulder arthroplasty	326	158	12	8%	4 – 12%
29914	Hip arthroscopy, osteochondroplasty	360	175	13	7%	3 – 11%
29828	Shoulder arthroscopy, biceps tenodesis	564	263	18	7%	4 – 10%
29898	Ankle arthroscopy	463	249	14	6%	3 – 9%
27829	Ankle ORIF, Pilon	423	270	17	6%	3 – 9%
27880	Below knee amputation	319	193	11	6%	3 – 9%
25447	CMC arthroplasty	557	251	16	6%	3 – 9%
25607	Distal radius ORIF, extra-articular	395	272	17	6%	3 – 9%
27506	Femoral intramedullary nailing	306	209	12	6%	3 – 9%

29822	Shoulder arthroscopy, extensive debridement	1129	572	34	6%	4 – 8%
29823	Shoulder arthroscopy, limited debridement	2079	1004	58	6%	5 – 7%
29827	Shoulder arthroscopy, rotator cuff repair	2817	1279	83	6%	5 – 7%
27130	THA	2988	1243	79	6%	5 – 7%
27822	Ankle ORIF, trimalleolar	319	234	11	5%	2 – 8%
64721	CTR, open	3821	2080	104	5.00%	4.1 – 5.9%
64718	Cubital tunnel release	849	441	22	5%	3 – 7%
29824	Shoulder arthroscopy, distal clavicle excision	2102	993	48	5%	4 – 6%
27759	Tibial intramedullary nailing	412	273	14	5%	2 – 8%
28285	Hammertoe correction	1786	1087	38	4%	3 – 5%
29873	Knee arthroscopy, lateral release	746	392	15	4%	2 – 6%
29880	Knee arthroscopy, meniscectomy, medial AND lateral	2633	1464	45	3.10%	2.2 – 4.0%
27814	Ankle ORIF, bimalleolar	560	392	11	3%	1 – 5%
27792	Ankle ORIF, lateral malleolous	661	464	13	3%	0 – 6%
28299	Bunionectomy, double osteotomy	631	410	13	3%	1 – 5%
29848	CTR, endoscopic	1593	837	24	3%	2 – 4%
25000	De Quervain's release	658	356	11	3%	1 – 5%
25609	Distal radius ORIF, intra-articular	484	341	11	3%	1 – 5%
29877	Knee arthroscopy with chondroplasty	1598	898	27	3%	2 – 4%
29875	Knee arthroscopy, limited synovectomy	1198	691	20	3%	2 – 4%
29876	Knee arthroscopy, major synovectomy	1152	624	17	3%	2 – 4%
29879	Knee arthroscopy, microfracture	1212	714	22	3%	2 – 4%
28308	Metatarsal osteotomy, Weil	777	447	12	3%	1 – 5%
29806	Shoulder arthroscopy, capsulorrhaphy	1048	683	18	3%	2 – 4%
29807	Shoulder arthroscopy, SLAP repair	869	522	17	3%	2 – 4%
26055	Trigger finger release	2208	1386	42	3.00%	2.1 – 3.9%
29881	Knee arthroscopy, meniscectomy, medial OR lateral	8113	4909	141	2.90%	2.4 – 3.4%

25111	Wrist ganglion excision	957	655	11	2%	1 – 3%
28296	Bunionectomy, single osteotomy	1330	831	16	1.90%	1 – 2.8%

ALIF – Anterior lumbar interbody fusion. PLIF – Posterior lumbar interbody fusion. PSF – Posterior spinal fusion. ACDF – Anterior cervical discectomy and fusion. MTP – Metatarsophalangeal. ORIF – Open reduction internal fixation. CMC – Carpometacarpal. THA – Total hip arthroplasty. CTR – Carpal tunnel release. SLAP – Superior labrum anterior and posterior.

Appendix II - Orthopaedic surgical procedures excluded from the top 50 due to low incidence (fewer than 11 cases) of new long-term opioid prescription filling behavior, ranked by total number of surgeries

The surgical procedure codes in this table would have been included in the top 50 most common orthopaedic codes based on the total surgeries (n_{tot}) that were performed in 2013 and 2014 if the rate of new long-term opioid prescription filling behavior were known. For privacy reasons the exact number of patients was concealed when data were retrieved. Therefore, the maximum rate of new long-term opioid prescription filling behavior ($\text{Max } R_{\mu}$) is reported for these procedures. CPT: current procedural terminology. n_{naive} : total procedures on individuals not taking opioids preoperatively in the database for the period from 2013-2014. n_{μ} : total new individuals displaying long-term opioid prescription filling behavior in the database for the period from 2013-2014.

CPT Code	Procedure Description	n_{tot}	n_{naive}	n_{μ}	$\text{Max } R_{\mu}$	95% CI
29888	ACL reconstruction	2952	1918	<11	0.5%	0.2 – 0.8%
29882	Knee arthroscopy, meniscus repair	915	631	<11	2%	1 – 3%
26160	Cyst excision, finger	662	460	<11	2%	1 – 3%
28820	Toe amputation	456	279	<11	4%	2 – 6%
23515	Clavicle ORIF	433	327	<11	3%	1 – 5%
28080	Excision of Morton's neuroma	430	248	<11	4%	2 – 6%
26615	Metacarpal ORIF	419	299	<11	3%	1 – 5%
29874	Knee arthroscopy, loose body removal	387	261	<11	4%	2 – 6%
22554	ACDF, without decompression	375	154	<11	6%	2 – 10%
28810	Ray amputation, foot	366	224	<11	4%	1 – 7%
28300	Calcaneal osteotomy	364	201	<11	5%	2 – 8%
29862	Hip arthroscopy, debridement	359	197	<11	5%	2 – 8%

ACL – Anterior cruciate ligament. ORIF – Open reduction internal fixation. ACDF – Anterior cervical discectomy and fusion.