



BULLETIN

No. 25-01

January 9, 2025

Anti-inflammatories remain the most heavily prescribed drug group in California workers' compensation, representing nearly a third of all prescriptions dispensed in 2023 and in the first half of 2024, but with low-cost drugs dominating this group, dermatologicals, which include a number of high-priced, private label drugs, are once again the costliest drug group, consuming 20.3% of the total drug spend in 2023 and 18.9% in the first half of 2024.

The latest update to CWCI's Prescription Drug Interactive Application includes records on nearly 9.7 million prescriptions dispensed to California injured workers between 2010 and June 2024, with payments for these prescriptions totaling nearly \$1.03 billion. To identify prescription and payment trends since the DWC incorporated ACOEM's Opioid and Pain Management Guidelines into the MTUS in late 2017 and adopted the Medical Treatment Utilization Schedule (MTUS) Prescription Drug Formulary in 2018, Institute analysts used the updated application to compare data on prescriptions filled between 2016 and the first half of 2024.

Anti-inflammatories such as ibuprofen and naproxen, which are often used as non-opioid alternatives to treat pain, surpassed opioids to become the top workers' comp drug group in 2016, and in 2021 they peaked at a record 35.3% of all prescriptions dispensed to injured workers. The distribution of prescriptions by drug ingredient shows that most of the growth in anti-inflammatories between 2017 and 2021 was due to the increased use of inexpensive ibuprofen, which increased from 32.9% of all anti-inflammatories dispensed in 2017 to 42.2% in 2021. Since then, ibuprofen's share of the anti-inflammatory prescriptions has stabilized, ranging between 42.2% and 42.9% over the past 2-1/2 years. Overall, ibuprofen has also remained the single most heavily used drug in workers' compensation, accounting for 14.1% of all prescriptions dispensed in 2023 and 13.7% of all prescriptions in the first half of this year, ranking ahead of another anti-inflammatory, naproxen, which was the second most heavily prescribed workers' compensation drug in 2023 (8.2% of all prescriptions) and the first half of 2024, (7.9% of all prescriptions). Notably, opioids' share of California workers' comp prescriptions has plummeted over the past 15 years, with the latest figures showing that since the adoption of the Pain Management and Opioid Guidelines and the adoption of the MTUS Formulary, opioids have dropped from 22.0% in 2016 to 7.9% in 2023 and 7.6% in the first half of 2024.

Distribution of Calif WC Prescriptions, Top 10 Therapeutic Drug Groups, 2016 – June 2024 Fill Dates

Top 10 Drug Groups	Percentage of Prescriptions								
	2016	2017	2018	2019	2020	2021	2022	2023	Q1&Q2 2024
Anti-Inflammatory	26.3%	27.5%	30.8%	34.4%	34.8%	35.3%	34.6%	32.9%	32.1%
Dermatological	4.9%	5.5%	6.4%	7.6%	8.5%	9.2%	10.5%	12.2%	12.6%
Anticonvulsant	7.6%	8.5%	9.7%	9.9%	10.2%	9.3%	9.2%	9.4%	9.5%
Antidepressant	5.5%	5.7%	6.4%	6.4%	6.7%	7.4%	7.6%	8.0%	8.1%
Opioid	22.0%	19.5%	14.6%	11.4%	10.4%	9.4%	8.6%	7.9%	7.6%
Musculoskeletal	10.7%	10.5%	7.1%	6.4%	6.1%	5.8%	6.0%	6.3%	6.2%
Ulcer	6.7%	6.5%	6.3%	6.1%	6.0%	5.5%	5.1%	4.7%	4.7%
Non-Narcotic Analgesic	0.7%	0.8%	1.1%	1.4%	1.9%	2.3%	3.1%	3.1%	3.6%
Cephalosporin	1.2%	1.2%	1.6%	1.5%	1.4%	1.5%	1.3%	1.2%	1.1%
Corticosteroid	1.5%	1.6%	1.5%	1.5%	1.4%	1.5%	1.4%	1.2%	1.0%

Top 10 therapeutic drug list based on Q1-Q2 2024 prescription volume

Dermatologicals share of prescriptions has risen steadily over the past 8-1/2 years, increasing from 4.9% in 2016 to 12.6% in the first half of last year, and in 2022 they surpassed anticonvulsants to become the second most heavily prescribed drug group. Anticonvulsants' share of the prescriptions jumped from 7.6% in 2016 to 10.2% in 2020, but has shown little change since 2021, ranging between 9.2% and 9.5%, while antidepressants' share climbed steadily from 5.5% in 2016 to 8.1% of the January-June 2024 prescriptions, so they now rank fourth in terms of prescription volume, ahead of opioids, which fell from 22.0% of the prescriptions in 2016 to 7.6% in the first half of 2024, with most of that decline occurring after the DWC added the Opioid and Pain Management Guidelines to the MTUS and adopted the formulary. Of the five other drug groups on the top 10 list, musculoskeletal drugs registered the steepest decline over the past 8-1/2 years, falling from 10.7% of all workers' compensation prescriptions in 2016 to 5.8% in 2021 before leveling off at just over 6% over the past 2-1/2 years. This decline coincided with the implementation of the MTUS Formulary in 2017, as the formulary categorized musculoskeletal drugs as Non-Exempt drugs, which are subject to utilization review except in limited situations where they are allowed as special fill or perioperative drugs.

Ulcer drugs, typically used to treat digestive issues associated with opioids and anti-inflammatories, were the only other therapeutic drug group that accounted for close to 5% of the prescriptions last year, though their share of the workers' comp prescriptions fell to a 10-year low of 4.7% in 2023 and remained there in the first half of 2024. The downtrend in ulcer drugs since 2016 coincided with the decline in opioid use over that same period. With fewer opioids being dispensed, non-narcotic analgesics have accounted for a growing share of the workers' comp prescriptions, as they have increased from 0.7% of the prescriptions in 2016 to 3.6% in the first half of last year.

The table below shows the distribution of 2016 through June 2024 prescription payments for the top 10 drug groups (ranked by their share of the total drug spend from the first half of 2024) and reveals the shifting percentages of payments flowing toward each group over the past 8-1/2 years.

Distribution of Calif WC Total Drug Spend, Top 10 Drug Groups 2016 – June 2024 Fill Dates

Top 10 Drug Groups	Percentage of Total Drug Spend								
	2016	2017	2018	2019	2020	2021	2022	2023	Q1&Q2 2024
Dermatological	16.0%	18.2%	16.3%	17.1%	14.9%	17.6%	18.2%	20.3%	18.9%
Anti-Inflammatory	16.9%	14.7%	13.1%	16.0%	24.0%	25.1%	20.2%	17.4%	16.8%
Anticonvulsant	9.1%	11.2%	14.5%	14.2%	10.2%	7.7%	8.0%	8.0%	8.2%
Migraine	0.7%	0.6%	0.5%	0.7%	1.1%	1.8%	3.1%	4.8%	6.7%
Ulcer	6.4%	6.9%	5.7%	6.2%	7.2%	7.0%	7.6%	6.5%	6.6%
Opioid	18.2%	15.9%	12.3%	9.3%	6.6%	5.8%	6.0%	5.5%	4.9%
Antidepressant	4.4%	3.5%	3.4%	2.7%	2.9%	3.1%	3.6%	4.4%	4.5%
Musculoskeletal	6.8%	6.7%	4.3%	3.4%	4.9%	3.8%	4.1%	3.8%	4.0%
Psychotherapeutic & Neurological	1.2%	1.2%	2.0%	2.7%	2.7%	2.7%	2.9%	3.1%	3.6%
Anticoagulant	0.6%	0.7%	1.3%	1.7%	2.7%	2.5%	2.8%	2.6%	2.8%

Top 10 therapeutic drug list based on Q1-Q2 2024 total payments

The 10 costliest drug groups combined for 78.3% of the total drug spend in the first half of 2024, nearly matching their 77.8% share in 2023 and their 78.8% share in 2016, but the distribution of payments among the top groups shifted as opioid's share of the dollars dropped from 18.2% in 2016 (first among all drug groups) to 4.9% in the first half of 2024 (sixth among all drug groups). With opioid payments trending down, dermatologicals' share of the drug spend -- driven up by high-priced, topical creams, gels, and patches containing ingredients such as lidocaine, menthol, diclofenac sodium, or capsaicin -- climbed from 16.0% in 2016 to 20.3% in 2023 -- before falling back to 18.9% in the first six months of 2024. Anti-inflammatories share of the drug spend fell from 16.9% in 2016 to 13.1% in 2018, but after the Opioid and Pain Management Guidelines were adopted and the formulary took effect, utilization and payments for anti-inflammatories spiked as they were heavily relied upon to treat pain during the pandemic, so they became the most costly drug group, consuming 24.0% of the prescription dollars in 2020, 25.1% in 2021, and 20.2% in 2022. But, just as they had been during the three years prior to the pandemic, dermatologicals surpassed the anti-inflammatories to become the costliest drug group in 2023 and the first half of last year.

Meanwhile, anticonvulsants' share of the drug spend grew from 9.1% in 2016 to a peak of 14.5% in 2018, but after the 2019 approval of generic pregabalin (Lyrica), the anticonvulsants' share of the prescription payments fell to 7.7% before leveling off at around 8% over the last 2-1/2 years. Migraine drugs only ranked 13th in prescription volume in the latest rankings, but they have become the fourth costliest drug group due to the introduction of several high-cost brand drugs in recent years (see CWCI's October 2024 Spotlight Report), which pushed their share of the drug spend from 0.5% in 2018 to 6.7% in the first half of last year. The recent decline in musculoskeletal drug prescriptions is reflected in the payment data as well, as they dropped from 6.8% of the prescription payments in 2016 to 4.0% in the first half of 2024. At the same time, psychotherapy and neurological drugs' share of the drug spend has tripled from 1.2% to 3.6%, while anticoagulants share has climbed from 0.6% to 2.8%. Ulcer drugs and antidepressants have seen their share of the drug spend fluctuate over the last 8-1/2 years, but the net change from 2016 to the first half of 2024 has been nominal.

CWCI members can access the Prescription Drug Application, which contains claim-level data on prescription drug utilization by accident year at different levels of development and service-level data on prescription drugs dispensed from 2010 through June 2024, by logging on to the Research section at www.cwci.org.

BY/
Copyright 2025 California Workers' Compensation Institute

CWCI members may log in to www.cwci.org to view Bulletins and Research Reports. Nonmember subscribers may log in under Resources (subscriber files). Public information is also on the website and nonmembers may order Bulletin/Research subscriptions from the online store.