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# BULLETIN

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Part II of CWCI's research series on low-volume/high-cost drugs used to treat California injured workers identifies three Dermatologicals, three Opioids, and three Antidepressants that represent a relatively small share of the prescriptions within their therapeutic drug group, but due to high average reimbursements, have become cost drivers, consuming a disproportionate share of the payments.

CWCI's report on Dermatological, Opioid, and Antidepressant drugs used in California workers' compensation is the second of a three-part series that uses data from the Institute's Prescription Drug Application to track changes in the distribution of California workers' compensation prescriptions and pharmacy payments over the past decade, and to identify medications with high average payments that have a disproportionately large impact on total reimbursements within their drug group. The authors note the changes in the average payment per prescription for each of the highlighted drugs over the 10-year study period (service years 2012 through 2021), changes in the percent of the prescriptions dispensed as a brand rather than a generic drug, and factors that contribute to the high cost of these drugs.

The findings show that Dermatologicals were the fourth most prevalent drug category in California workers' compensation in 2021, with 9.3% of the prescriptions, but ranked second behind Anti-Inflammatories in payments, consuming 17.3% of the total drug spend. That percentage was up from 12.8% in 2012, which the study ascribes to both increased utilization and the emergence of topical analgesics, including diclofenac sodium topicals, which jumped from 0.5% of all workers' comp prescriptions in 2012 to 5.4% in 2021 – fourth among all drugs dispensed that year.

Even though diclofenac sodium topicals accounted for 58.1% of the Dermatological prescriptions filled in 2021, inexpensive generics were widely available, which kept the average reimbursement at a relatively low $65, so they consumed only 23.5% of Dermatological payments. However, three other Dermatologicals, diclofenac sodium and adhesive sheets (dispensed as Xrylix kits at an average of $4,126), lidocaine/menthol (average payment, $1,050, with NuLido gel and Terocin patches being the key cost drivers), and diclofenac epolamine (Flector patches at an average payment of $570 and generic equivalents that averaged $577) together comprised just 3% of the Dermatological prescriptions dispensed in 2021 but consumed 19.3% of the Dermatological drug spend.

The California workers' compensation system has had success in curbing inappropriate Opioid use, as Opioids declined from 29.4% of all prescriptions dispensed in 2012 to 9.4% in 2021. At the same time, their share of the prescription drug spend has dropped from 26.7% to 5.8%, and most of the commonly dispensed Opioids are now inexpensive. However, the study noted three low-volume/high-priced drugs that have become cost drivers within the Opioid group: buprenorphine, tapentadol HCl, and oxycodone (often prescribed in extended-release, abuse-deterrent varieties). Together these three drugs represented 11.7% of the Opioids dispensed in 2021 but accounted for 57.8% of all Opioid payments.

Buprenorphine, used to treat severe pain and Opioid Use Disorder for patients in Medication-Assisted Treatment plans that often run 6 to 12 months accounted for 5.2% of the Opioids dispensed to injured workers in 2021 (versus 1.4% a decade earlier), but with an average reimbursement of $363, it consumed 35.4% of the 2021 Opioid payments, versus 4.4% in 2012. Buprenorphine is available as a tablet, which tends to cost less, or as a film or patch, where depending on the quantity dispensed, average payments can range from a few hundred dollars to well over a $1,000 per prescription. Brand varieties comprised 42% of the buprenorphine dispensed in 2021, with average payments of $594 per prescription, more than triple the $195 average for generics, which drove the overall average payment up to $363.

Tapentadol HCl, used when other pain meds do not work well or cannot be tolerated, is only available as a brand drug (Nucynta or Nucynta Extended Release) in various dosages. In 2021 it represented only 0.6% of Opioid prescriptions, but with an average payment of $590, it accounted for 6.4% of the Opioid dollars. Tapentadol HCl's share of the Opioid prescriptions fell from 1.3% in 2012 to 0.6% in 2021, but it remained under patent and with the lack of low-priced generic alternatives, the average payment more than doubled over that 10-year span, so its share of the Opioid drug spend jumped from 3.6% to 6.4%, though its share of the Opioid prescriptions has declined by half since 2019, the same year its share of Opioid payments peaked at 8.4%.

Oxycodone's share of the Opioid prescriptions was relatively stable within the 10-year study period, ranging between 4.9% and 6.4%, but with the increased use of low-cost generic versions of the drug, the average payment for an oxycodone prescription declined steadily, falling from $409 in 2012 to $146 in 2021, so its share of the Opioid payments dropped from 21.7% to 16.0%. In 2012, 42% of the oxycodone dispensed to injured workers was generic, and claims administrators paid an average of $106 for those prescriptions, but by 2021, 79% of the prescriptions were generics, and the average payment for those prescriptions was $23. Although prescribed far less than in 2012, brand versions of oxycodone still play a key role in maintaining the drug's large share of the total Opioid drug spend, as unlike generic versions of the drug, the average amount paid for brand oxycodone prescriptions has barely budged, averaging $615 in 2021 compared to $630 in 2012.

The top four Antidepressants dispensed in 2021 represented nearly 2/3 of all Antidepressants used, but all four are relatively low-cost drugs, so they accounted for only 42.5% of the payments in this drug category. In contrast, three low-volume/high-priced drugs (vortioxetine HBr, bupropion HCl, and desvenlafaxine) together represented less than 10% of the Antidepressant prescriptions in 2021 but consumed 32.2% of the total Antidepressant drug spend.

Vortioxetine HBr is used to treat Major Depressive Disorder and carries a black box warning noting an increased risk of suicidal thoughts and behaviors. It remains under patent and is only available as brand-name Trintellex, but is available in 5, 10, and 20 mg tablets. In 2014, the first year vortioxetine HBr appeared in CWCI's pharmacy data, the average payment was $268, but it accounted for only 0.4% of the Antidepressants dispensed that year, so its share of the Antidepressant payments was only 0.9%. By 2019, the average payment for vortioxetine HBr hit a record $450, and its share of the Antidepressant prescriptions had quadrupled to 1.6%, so it accounted for a record 17.7% of the Antidepressant drug spend that year. In 2021, vortioxetine HBr's share of the Antidepressant prescriptions fell back to 1.0%, but the average payment only declined to $426, so it still consumed 12.4% of the Antidepressant reimbursements.

Desvenlafaxine, an extended-release tablet that comes in different strengths, is used to treat major depression. In 2012, this drug represented 2.4% of the Antidepressant prescriptions, and with an average payment of $176, it consumed 3.8% of the Antidepressant payments. By 2016, desvenlafaxine's share of the Antidepressant prescriptions was down to 1.9%, but with only brand versions (Pristiq, Khedezla) available, the average reimbursement had increased to $367, so its share of the Antidepressant dollars had climbed to 8.9%. With the introduction of generic desvenlafaxine in 2017, the average payment per prescription declined to $257, and since then the average payments have fluctuated between $115 and $150, so desvenlafaxine's share of the Antidepressant prescriptions dropped from 2.0% to 1.0%. Though brand versions have represented only 14 to 15% of the desvenlafaxine dispensed since 2019, the average paid for brand prescriptions has been as high as $642 compared to $58 to $66 for generic versions, which drove up the overall average payment to $131 in 2021, so even though desvenlafaxine represented just 1.0% of the workers' compensation Antidepressant prescriptions, it still accounted for 3.5% of the Antidepressant payments.

Bupropion HCl (Wellbutrin), used to treat depression, anxiety, and other mood disorders, and to aid smoking cessation, jumped from 7.6% of the Antidepressant prescriptions in 2012 to 12.3% in 2016, but has been in a fairly steady decline ever since. Generic versions of this drug dominate the workers' compensation market, accounting for 96% of the prescriptions in 2012 and 98% in 2021, but brand versions, including extended-release Wellbutrin, tend to be very expensive. Unlike generics, where the average payment declined from $121 in 2012 to $25 in 2021, over that same decade average reimbursements for brand versions of bupropion increased nearly 10-fold from $267 to $2,614. The dominance of generic buproprion HCl has helped contain the total amount paid for this drug, but the 2% of the prescriptions dispensed as high-priced brand drugs in 2021 drove the overall average payment up to $77, which is more than three times the $25 average paid for generics. As a result, bupropion HCl, which accounted for 7.6% of the Antidepressant prescriptions in 2021, consumed 16.3% of the Antidepressant payments.

CWCI has published more details on these drugs in a Spotlight Report, ***Cost-Driver Medications in the Top California Workers' Comp Therapeutic Drug Groups: Part II, Dermatologicals, Opioids, and Antidepressants***. Institute members and subscribers can log on to www.cwci.org and access the report under the Research tab, others can purchase a copy from the CWCI's online store. CWCI members can also log onto the Interactive Research Tools section under the Research tab to access the Prescription Drug Application and the MTUS Formulary Application, which has prescription data broken out by formulary category. Part III of CWCI's research on low-volume/high-cost medications will focus on medications found in the Musculoskeletal and Ulcer drug categories.