

California's New Drug Formulary – One-Year Checkup

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Summary

Effective January 1, 2018, the California Division of Workers' Compensation (DWC) adopted an evidence-based drug formulary intended to reduce frictional costs in the workers' compensation system; restrict inappropriate prescribing, especially that related to opioids; and ensure that injured workers receive medically necessary medications in a timely manner. The Workers' Compensation Insurance Rating Bureau of California (WCIRB) reviewed the impact of the new drug formulary on prescribing patterns and pharmaceutical costs based on pharmaceutical transaction information through the first year of implementation. The WCIRB's findings include:

- The share of prescriptions of drugs not subject to prospective utilization review (UR) in accordance with the formulary increased by 41 percent compared to the pre-2018 level, while that of drugs subject to UR declined by 18 percent.
- The use of opioids, compounds, physician-dispensed drugs and brand-name drugs with generic alternatives dropped sharply in 2018, the first year of the formulary.
- While a number of the aforementioned pharmaceutical components had been declining prior to the implementation of the formulary, the decline accelerated during 2018, suggestive of the effect of the drug formulary.

Background

On October 6, 2015, Governor Jerry Brown signed Assembly Bill No. 1124 into law, which directed the DWC to adopt an evidence-based drug formulary in the California workers' compensation system.¹ In 2017, the DWC adopted the new drug formulary linked to the California Medical Treatment Utilization Schedule (MTUS) to be effective on January 1, 2018. The drug formulary intends to reduce frictional costs mostly from UR and independent medical review (IMR); restrict inappropriate prescribing, especially that related to opioids; and ensure medically necessary and timely medications for injured workers. The drug formulary includes an MTUS drug list of about 300 drug ingredients that are assigned a status of exempt or non-exempt from prospective UR. All opioids and compounded drugs are non-exempt from prospective UR. Additionally, certain non-exempt drugs can be prescribed without prospective UR if fulfilling the requirements of special fill or peri-operative fill policies.² Drugs not listed on the MTUS drug list must obtain authorization through prospective UR prior to dispensing.

In the July 1, 2018 Pure Premium Rate Filing, the WCIRB estimated that the drug formulary will reduce pharmaceutical costs by 10 percent, resulting in an overall 0.5 percent reduction in the advisory pure premium rate level.³ The WCIRB's initial estimate was based largely on projected reductions in the use of opioids, compounds, physician-dispensed drugs and brand-name drugs with generic alternatives.

The objective of this analysis is to provide an early assessment of the impact of the drug formulary based on actual prescribing patterns in the first year of implementation.

Analysis Approach

To evaluate the impact of the formulary on emerging pharmaceutical costs, the WCIRB analyzed medical transaction data for medical services rendered between July 1, 2015 and December 31, 2018. Exempt and non-exempt drugs were identified in the transaction data based on the MTUS drug list as well as whether the non-exempt drug was provided on a special fill or peri-operative fill basis.⁴

The WCIRB first estimated the volume of prescriptions and drug costs that are no longer subject to prospective UR under the drug formulary. The WCIRB then evaluated the impact of the drug formulary on the pharmaceutical components most likely impacted by the formulary and for which cost reductions were estimated in the WCIRB's initial prospective cost evaluation. These include: opioids, compounded drugs, physician-dispensed drugs and brand-name drugs with generic alternatives.

Results

Overview of Pharmaceutical Utilization and Costs – One-Year Post-Reform

Even before the implementation of the drug formulary, pharmaceutical costs in California had been declining sharply (Figure 1). Key drivers of the decrease include Senate Bill No. 863 reforms related to IMR and spinal surgeries, changes in the federal government upper-limit pricing levels, anti-fraud efforts and the public reaction to the national opioid epidemic. While there was an even more significant drop in the utilization and cost of pharmaceuticals in 2018, it is not immediately clear how much of the decline was due to the formulary and how much was due to the continuation of the factors driving the prior year decreases.

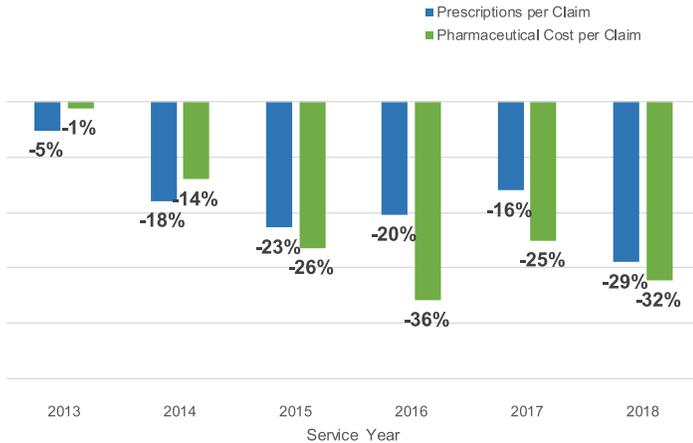
¹ The DWC regulations can be accessed through the following link: dir.ca.gov/dwc/MTUS/MTUS-Formulary.html

² Special fill and peri-operative fill policies allow certain non-exempt drugs without prospective UR if the drug is prescribed within certain time frames (special fill: 7 days of the date of injury; peri-operative fill: 4 days prior to surgery and 4 days after surgery) and meet specified criteria in Sections 9792.27.12 and 9792.27.13, respectively.

³ See Section B, Appendix A of the WCIRB's July 1, 2018 Pure Premium Rate Filing submitted on April 9, 2018.

⁴ Versions 1 to 3 of the MTUS drug list were used for the analysis as they took effect in 2018. dir.ca.gov/dwc/MTUS/MTUS-Formulary-Orders.html

Figure 1. Percentage Change in Pharmaceutical Utilization and Costs per Claim Comparing Each Service Year to the Prior Service Year



Based on the WCIRB's database of medical transactions for insured employers, about 870,000 prescription drugs were provided to California injured workers in 2018, a decrease from about 1.3 million in 2017.⁵ Of the drugs prescribed in 2018, exempt and non-exempt drugs accounted for 45 and 42 percent of all prescriptions and 22 and 45 percent of the total drug payments, respectively. The remaining drugs were not listed in the formulary and are subject to prospective UR.

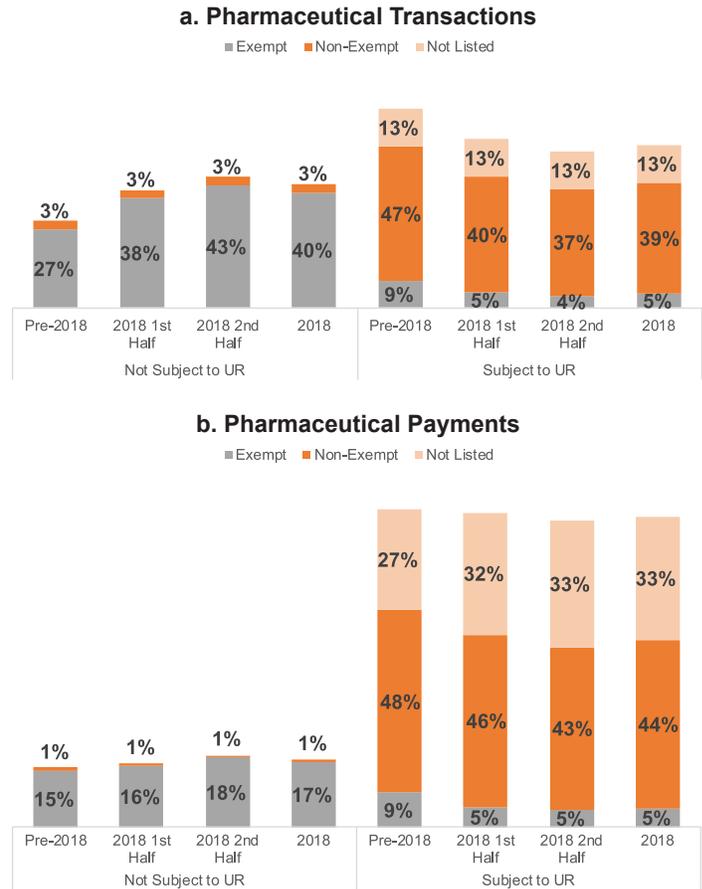
The Use of Drugs Exempt from Prospective Utilization Review

UR and IMR are two primary mechanisms of dispute resolution in the California workers' compensation system to ensure that appropriate medical treatments and prescription drugs are provided to injured workers. The UR and IMR processes, however, consume substantial resources from all stakeholders in filing applications, reviewing requests and making appeals. Pharmaceutical disputes, in particular, account for 40 to 50 percent of all UR and IMR decisions.⁶ In addition to potentially reducing frictional costs, drugs listed in the formulary as exempt are generally less expensive than many of the alternatives that are either non-exempt or not listed in the formulary.

In the year following the drug formulary becoming effective, drugs not subject to prospective UR were prescribed significantly more compared to the pre-2018 level (Figure 2a). Specifically, the use of drugs not subject to prospective UR increased by 41 percent, while that of drugs subject to prospective UR decreased by 18 percent.

With respect to pharmaceutical payments, despite having a significant increase in the share of prescriptions of drugs not subject to UR, these drugs incurred only a 13 percent higher share of the cost in 2018 compared to the pre-2018 level (Figure 2b). Conversely, the share of payments to drugs subject to prospective UR decreased by only 2 percent, even when their volume decreased disproportionately more. In addition, consistent with the expectation that the impact of the drug formulary would increase over time, the share of prescriptions exempt from prospective UR was significantly greater in the second half of 2018 than in the first half.

Figure 2. Share of Pharmaceutical Transactions and Payments by Drug Formulary Category, Pre-Reform⁷ vs. Post-Reform



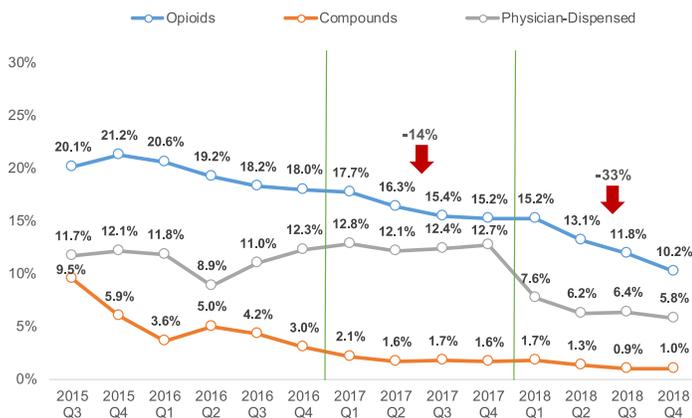
Other Prescribing Patterns

The analysis also examined the prescribing patterns in the four pharmaceutical components expected to be most impacted by the drug formulary: opioids, compounded drugs, physician-dispensed drugs subject to prospective UR⁸ and brand-name drugs with generic alternatives. Studies have shown that these four categories of drugs tend to be significant drivers of medical costs in the workers' compensation system.^{9,10}

The shares of the total drug payments to opioids and compounds continued to decline in 2018 compared to prior years and, in particular, the decline accelerated in 2018 compared to 2017 (for example, -33 percent vs. -14 percent for opioids) as physicians became more familiar with the drug formulary (Figure 3). Similar patterns were found among physician-dispensed drugs that are subject to prospective UR. The share of the total drug payments for physician-dispensed drugs was fairly flat throughout 2017 yet declined significantly throughout 2018 from about 13 percent in the fourth quarter of 2017 to only 6 percent in the fourth quarter of 2018.

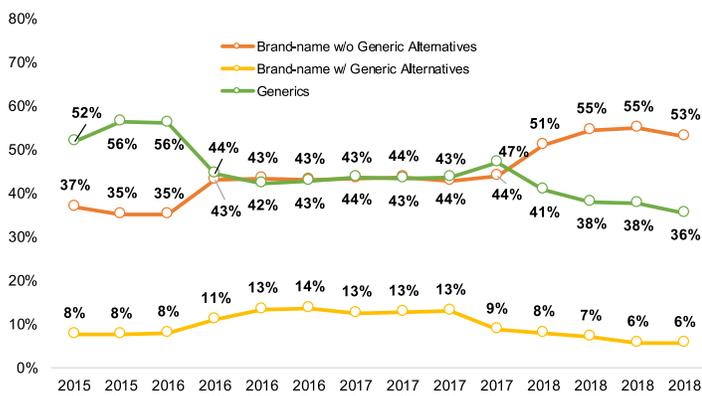
⁵ The WCIRB collects medical transaction data from insurers representing 92 percent of the California insured market. Therefore, pharmaceutical transactions included in this analysis do not represent the entire insured market in California.
⁶ David R., Young B., California Workers' Comp Independent Medical Review: Q1 2015 Outcomes. CWCI Spotlight Report. July 2015.
⁷ Pre-reform data includes the WCIRB pharmaceutical transaction data between July 1, 2015 and December 31, 2017.
⁸ These include exempt drugs dispensed by physicians after 7 days from the date of injury and non-exempt drugs.
⁹ Patterns of Drug Dispensing in California Workers' Compensation, WCIRB California, Johnson G, 2016.
¹⁰ Modeling the Economic Impact of a California Workers' Compensation Formulary, RAND, Mulcahy A.W., Hollands S., Duffy E.L., Strong A., and Wynn B.O., 2017.

Figure 3. Share of Pharmaceutical Payments to Opioids, Compounds and Physician-Dispensed Drugs¹¹



The share of the drug payments to brand-name drugs with generic alternatives decreased sharply from 13 percent in earlier 2017 to 9 percent in the fourth quarter of 2017 and continued to decline throughout 2018 to 6 percent in the fourth quarter of 2018 (Figure 4).

Figure 4. Share of Pharmaceutical Payments to Brand-Name Drugs vs. Generics



¹¹ The compounds shown in the graph do not include opioids, and the physician-dispensed drugs shown in the graph do not include opioids or compounds.

¹² Pre-reform data includes WCIRB pharmaceutical transaction data between July 1, 2015 and December 31, 2017.

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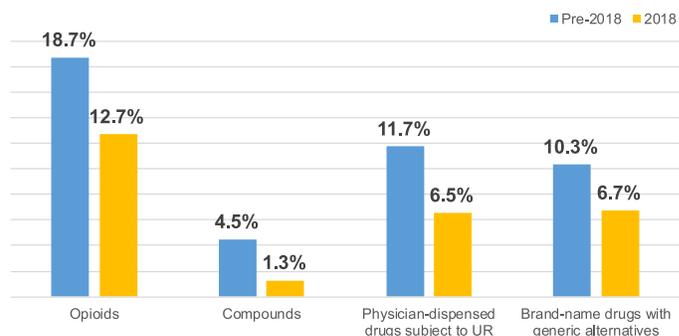
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In summary, pharmaceutical payments for the four categories of costly prescription drugs experienced continued and more significant decline in 2018 compared to the pre-2018 level (Figure 5). Even throughout 2018, the downward trend of the medical payments for these drugs persisted.

Figure 5. Summary of Share of Total Drug Payments by Prescribing Component¹²



Conclusions

One year after the drug formulary was enacted, prescriptions of drugs subject to prospective UR in the formulary experienced a significant decline, while drugs not subject to prospective UR were prescribed 41 percent more. The changing mix of prescription drugs indicates a shift toward prescribing drugs not subject to prospective UR, which could potentially reduce UR requests and result in lower drug costs. This suggests that the new drug formulary has played an important role in reducing pharmaceutical costs. In addition, payments for the pharmaceutical components expected to be most likely impacted by the formulary all continued to decline in 2018. The decline accelerated in 2018 compared to 2017 and was greater in the second half of the year compared to the first half, which is indicative of the expected increase in the impact of the drug formulary over time. Efforts to improve the drug formulary are ongoing, and the WCIRB will continue monitoring its impact on the utilization and costs of pharmaceuticals in the workers' compensation system as more data becomes available.