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2014 HIGHLIGHTS

$487.59

The cost trend for opioids for the second year in a row was flat, with a spend of $487.59 PUPY in 2014.

13.4%

Although the use of NSAID medications as alternatives to opioids in pain management may generally be viewed as positive, the 13.4% trend for NSAID medications was heavily influenced by an increase in the cost per prescription (12.8%) and a modest increase in utilization (0.2%).

19.6%

Antidepressant medications saw a 19.6% drop in PUPY cost.

45.0%

Although the 2014 trend for compounded medications was 45.0%, it was moderate compared to the 2013 trend of 125.6%.
INTRODUCTION

The goal of the workers’ compensation system is to enable injured workers to return to work as soon as feasible by providing them with the medical and pharmaceutical services that are appropriate for their injuries and disabilities. Determining the best way to provide this support in a safe and cost-effective manner is the shared goal of these injured workers’ employers and workers’ compensation payers. With pharmacy costs now accounting for 18% of total workers’ compensation medical spend, payers continue to look for ways to provide prescriptions to injured workers in a safe and cost-effective manner.

Over the past two decades, Express Scripts researchers, clinicians and product innovators have worked together to leverage the ever-increasing body of data we have collected on injured workers’ use of pharmaceuticals to gain insights that enable us to identify practical solutions for providing injured workers with effective, affordable pharmaceutical care.

In this 2014 Workers’ Compensation Drug Trend Report, we discuss the overall pharmacy trend for workers’ compensation and then present an analysis of opioid use among injured workers. Additionally, we provide insights related to compounded medications, physician dispensing, third-party billers, suboptimal channel use and therapeutic mix.

WHAT DROVE TREND IN 2014

Overall trend for Express Scripts Workers’ Compensation clients from 2013 to 2014 was a modest 1.9%, with a 7.0% increase in the cost per prescription almost entirely offset by a 5.4% decrease in per-user-per-year (PUPY) utilization. The trends for compounded medications (45.0%) and nonsteroidal anti-inflammatory drugs (NSAIDs) (13.4%) were moderated by negative trends for antidepressants (-19.6%) and dermatologicals (-10.9%). Trend for newly used drugs in 2014 was 0.8%, explained mostly by the expensive new medications available to treat hepatitis C.
OPIOID MEDICATION USE

CHALLENGE

Since the mid-1990s, the standards for pain treatment have changed significantly, moving from historically undertreating pain to the perception of “no ceiling dose” in pain management. As a result, there has been a dramatic increase in the number of patients receiving opioids as well as a rise in the total number of opioid doses prescribed and used. Opioids, however, have a high potential for abuse and addiction; since 1999, opioid overdoses have been much deadlier than overdoses from cocaine and heroin combined. In the U.S., overdoses of prescription opioids result in more than 15,000 deaths and 1.2 million emergency room visits each year.

Additionally, research suggests that using opioids for extended periods may be linked to increased dependence and mental health and substance abuse disorders. To mitigate the occurrence of these events, the American College of Occupational and Environmental Medicine (ACOEM), the American Society of Interventional Pain Physicians (ASIPP) and the American Academy of Neurology (AAN) recommend screening for depression for patients who are prescribed opioids. It is also recommended that sedative-hypnotic medications and benzodiazepines not be prescribed with opioids.

The latest guidelines from the AAN suggest that the benefits of prescription opioids in chronic, noncancer conditions such as headache, fibromyalgia and chronic low-back pain are outweighed by the risk of death, overdose, addiction or other serious side effects. Furthermore, continued opioid use has been associated with poorer outcomes, longer disability and higher medical costs among injured workers.

Prescribers are in a position to identify prescription drug abuse and mitigate this risk among their patients. But although they strive to attain a balance between providing patients with adequate pain control and minimizing the risks associated with prescription pain medication, fewer than 40% of physicians receive formal training to recognize the signs of drug diversion and abuse. In addition, physicians may not always have a complete picture of patients’ care, as patients may seek treatment from multiple physicians. In one study of individuals who overdosed on opiates, 40% were seeing multiple physicians; another 40% saw one physician but received a higher dose of opiates (≥100mg morphine equivalent dose per day); and the remaining 20% saw one physician and received a low dose (<100mg morphine equivalent dose per day).

Almost all patients with a work-related injury lasting less than a year use short-acting opioid medications exclusively (99.0%).
RESEARCH AND CLINICAL

Given the nature of most work-related injuries, prescriptions for opioids continue to account for the highest pharmaceutical spend and the highest utilization among the injured worker population. To better understand the utilization side of this equation, our researchers completed a multipronged analysis of opioid medications, examining utilization patterns among injured workers, dispensing practices among pharmacies and prescribing habits among physicians. The results inform our ongoing development of proven, empirically based pharmacy solutions.

Utilization Trends

Between 2013 and 2014, a 10.9% decline was seen in the PUPY utilization of opioids, yet the number of days of medication per prescription increased 1.3%. So although the number of prescriptions for opioids that were filled by injured workers decreased, the days’ supply that the workers were prescribed increased.

Despite the increase in the days’ supply per prescription, however, the percentage of injured workers using opioids for a longer term (i.e., more than a 30-day supply) decreased 2.6 percentage points in 2014, to 31.5% of opioid users (Exhibit 1).

Opioid product formulations can be classified as short-acting/immediate-release forms or long-acting/extended-release forms. According to guidelines, for patients who have tried and failed other types of medications and require opioids for pain and functional improvement,20 short-acting opioids generally are more appropriate for acute pain, whereas long-acting opioids generally are more appropriate for chronic pain.

Results from our analysis suggest that patients with severe, prolonged pain often are prescribed both short-acting opioids and long-acting opioids to address breakthrough pain and baseline pain control, respectively, which is considered clinically appropriate (Exhibit 2). Almost all patients with a work-related injury lasting less than a year use short-acting opioid medications exclusively (99.0%). Conversely, among patients who are still being treated more than 20 years after their date of injury, 23.1% use both short-acting and long-acting opioids.
Morphine Equivalent Dose
Morphine equivalent dose (MED) – a measure used to determine the morphine-like potency of a dose of an opioid medication – provides insight into the total dosage of opioids that a patient is prescribed as part of a treatment regimen. According to the Washington State Agency Medical Directors’ Group (AMDG), patients receiving an MED of 100mg or more per day had a ninefold increase in overdose risk.21

Our research found that injured workers with claims at least 15 years old exceeded the MED of 120mg per day on more than half of the days for which opioid medications were being filled. As shown in Exhibit 3, 21.9% of workers with injuries dating 15 years to 20 years had MEDs that met or exceeded 120mg per day on more than half of the days they were taking opioid therapy. In some cases, injured workers far exceeded one guideline’s recommendation of a maximum MED of 120mg per day, with the MED for some injured workers as high as 1,440mg per day.

Older injuries may require higher doses of opioids because the patient has become tolerant to previous doses; however, the most recent guidelines do not recommend escalation of opioid doses. In fact, there are specific recommendations for prescribing the lowest effective dose with documentation of functional improvement by the patient. If functional improvement is not present, tapering or discontinuing of opioids is recommended. And for patients on high doses of an opioid, consultation with an addiction specialist or a psychiatrist is recommended.

Concurrent Therapy
In 2014, nearly half (45.4%) of patients using an opioid pain medication took a combination of prescription drugs that carry potentially serious safety risks. Among patients using opioids, 32.6% had a concurrent prescription (prescribed in the same month) for a muscle relaxant, such as cyclobenzaprine; 10.5% had been prescribed a benzodiazepine, a drug class that includes anti-anxiety medications, such as Xanax® (alprazolam) and Ativan® (lorazepam); and 4.3% were taking all three types of medications during the same period.

Because opioids, benzodiazepines and muscle relaxants all can slow the respiratory system, taking these medications together can increase the risk of side effects and death from respiratory depression. Although taking three of these types of drugs in combination – sometimes referred to as a “Houston Cocktail” or “Holy Trinity” – may be clinically appropriate if there is a clear clinical indication and functional improvement, the combination must be used with extreme caution, as indicated by Washington State AMDG principles for safely prescribing chronic opioid therapy. In fact, using benzodiazepines and opioids in combination is the most common cause of overdose deaths involving multiple drugs.22

Among patients who in 2014 were taking one of these potentially dangerous combinations of medications, 41.9% were prescribed the medications by two or more physicians, and 19.1% filled their prescriptions at two or more pharmacies. Both findings indicate possible drug-seeking behaviors by these patients or a possible lack of consultation and coordination among prescribers.

Using benzodiazepines and opioids in combination is the most common cause of overdose deaths involving multiple drugs.
Omission Of Needed Treatments

Best practice when prescribing opioid pain medications calls for monitoring of constipation, a frequent and sometimes debilitating side effect of prescription opioid use. Other adverse effects may include respiratory depression, sedation, itching, dizziness, sexual dysfunction and nausea. Although many side effects resolve with continued therapy, constipation requires a bowel regimen.

Other side effects – including neuroendocrine dysfunction, hyperalgesia and hypogonadism – may accompany long-standing high-dose opioid therapy. If opioid therapy has a clear indication and improves function, the lowest effective dose should be used, while maximizing other drug and nondrug strategies. Some patients experiencing side effects can benefit from re-evaluation of the opioid dose or even the choice of using an opioid as pain-control therapy.

Analysis of injured workers’ prescription drug usage in 2014 revealed that concurrent treatments for constipation and nausea were rarely prescribed for long-term opioid patients. Only 7.1% of these patients filled a prescription for a stool softener, and even fewer – 1.9% – filled a prescription for an anti-nausea medication. Many of these patients, however, may have been managing their constipation and nausea using an over-the-counter (OTC) remedy rather than a prescription medication.

Prescribing and Pharmacy Trends

Primary care physicians (family medicine doctors, general practitioners and internists) were the leading source of opioid prescriptions for injured workers, writing 29.4% of opioid prescriptions in 2014. Only 0.2% of opioid prescriptions were written by pain specialists – who as a group tended to prescribe a higher days’ supply of medication per prescription than did primary care physicians.

Express Scripts researchers also found that 54.4% of opioid prescriptions filled by injured workers were written by just 5% of prescribers.

Using multiple prescribers or multiple pharmacies significantly raises the risk of being hospitalized for opioid-related injuries and can be an indicator for aberrant behaviors such as doctor-shopping and opioid misuse or abuse. Among patients who filled prescriptions for at least one opioid in 2014, 14.6% obtained their opioid medication from more than one pharmacy.
Pharmacies that compound 67% or more of their total prescriptions continue to increase their prices at a faster rate than pharmacies that compound less than 67% of their prescriptions.

Historically, compounding pharmacies have specialized in providing non-commercially available medications for patients who cannot ingest available alternatives. For example, for a patient who cannot swallow a tablet, a compounding pharmacy can provide a crushed or liquefied form of the medication. Or, for a patient who is allergic to an ingredient in a commercially available medication, a compounding pharmacy can provide a formulation without the ingredient. Accommodating these types of patient needs is both appropriate and necessary. In workers’ compensation, however, compounding pharmacies often combine multiple medications in a topical formulation for injured workers to apply to their skin for pain relief—despite the fact that there is no evidence-based support for the use of such preparations. There are numerous topical alternatives, either approved by the U.S. Food and Drug Administration (FDA) or available over the counter, that a patient should first try for pain relief before a prescriber suggests a compounded medication.

Compounding pharmacies are licensed by the board of pharmacy for the states in which they are located and are subject to only limited oversight by the FDA. Compounded medications therefore are not subject to the rigorous review that all commercially available prescription drugs must undergo to demonstrate safety and effectiveness as part of the FDA approval process. Further, compounded medications generally do not have standardized dosages or recommended durations for use, and the protocols for preparing each compound are not necessarily standardized.

For all these reasons, three serious concerns surround any compounded preparation: the preparation may not be the same when purchased from different compounding pharmacies; there is likely to be batch-to-batch variability even when the preparation is formulated by the same pharmacy; and the preparation’s sterility, purity and potency cannot be guaranteed. Yet because of the time, effort and expertise necessary for pharmacists to create compounded products, the costs of these preparations are often much higher than those of standard medications.
RESEARCH AND CLINICAL

Although the MediSpan® Generic Product Indicator (GPI) system has a category for chemicals, compounded medications are included in multiple therapy classes, because some commercially available drugs, such as NSAIDs and dermatologicals, may be used to make compounds. For this section of this report, we therefore examined all compounded medications regardless of MediSpan disease classification.

The Express Scripts Workers’ Compensation Research team found the following:

• Among injured workers, 2.2% used a compounded medication.

• Of the injured workers who received a compounded drug, 0.4% used only compounded medications during the year.

• Ten percent (10.0%) of compound utilizers did not receive a traditional prescription before receiving their compounded medication – that is, they used a compounded medication as the first prescription for their injury – raising the question of why first-line therapies were not tried initially.

Pharmacies that compound 67% or more of their total prescriptions (“high-compounding pharmacies”) continue to increase their prices at a faster rate than pharmacies that compound less than 67% of their prescriptions (“low-compounding pharmacies”). Although lower than the 151% price increase that occurred between 2012 and 2013, we found that high-compounding pharmacies increased their prices an average of 51.5% between 2013 and 2014, compared with an average price increase of 9.7% among low-compounding pharmacies (Exhibit 4).
The average cost of a physician-dispensed medication in 2014 was **$173.75**, compared to **$111.68** for a pharmacy-dispensed medication.
RESEARCH AND CLINICAL

Exhibit 5 shows the top 10 physician-dispensed medications by market share for Express Scripts Workers’ Compensation clients. All these medications – which account for nearly half of all physician-dispensed medications – are for pain, inflammation or muscle spasm, and all but two are generic medications that are available through pharmacies. Polar Frost™ and Biofreeze® are also available over the counter.

According to our data, the average cost of a physician-dispensed medication in 2014 was $173.75, compared to $111.68 for a pharmacy-dispensed medication. Express Scripts Workers’ Compensation clients therefore paid an average premium of about $62 for every physician-dispensed medication.

<table>
<thead>
<tr>
<th>MEDICATION</th>
<th>CONDITION</th>
<th>MARKET SHARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polar Frost™</td>
<td>Pain</td>
<td>10%</td>
</tr>
<tr>
<td>nabumetone</td>
<td>Pain/Inflammation</td>
<td>7%</td>
</tr>
<tr>
<td>Biofreeze®</td>
<td>Pain</td>
<td>5%</td>
</tr>
<tr>
<td>meloxicam</td>
<td>Pain/Inflammation</td>
<td>5%</td>
</tr>
<tr>
<td>Mâpap</td>
<td>Pain</td>
<td>4%</td>
</tr>
<tr>
<td>tramadol/acetaminophen</td>
<td>Pain</td>
<td>4%</td>
</tr>
<tr>
<td>tramadol</td>
<td>Pain</td>
<td>4%</td>
</tr>
<tr>
<td>etodolac ER</td>
<td>Pain</td>
<td>3%</td>
</tr>
<tr>
<td>cyclobenzaprine</td>
<td>Muscle Spasm</td>
<td>3%</td>
</tr>
<tr>
<td>orphenadrine</td>
<td>Muscle Spasm</td>
<td>3%</td>
</tr>
</tbody>
</table>
ut-of-network bills are a challenge for nearly all workers’ compensation payers. Although prescription ID cards are designed to help ensure that injured workers use a network pharmacy and that billing occurs economically and efficiently through the pharmacy benefit manager’s (PBM’s) electronic system, not all injured workers who visit a pharmacy present their prescription ID cards. If the pharmacy is not a participating pharmacy, if the pharmacy processes the prescription through a third-party biller (TPB) or if both occur, the result is an additional administrative burden and higher prescription drug costs for the payer.

Additionally, when prescriptions are processed through TPBs, the PBM’s point-of-sale safety net is removed. Payers lose the value of their formularies, thereby missing cost savings. And because prescriptions do not receive drug utilization review (DUR) checks for overdosing, adverse drug interactions and other potential drug-related problems, the injured worker faces increased health risks.

RESEARCH AND CLINICAL

In addition to lacking the PBM’s formulary and DUR safety checks, prescriptions processed through TPBs can create additional costs for payers — with no corresponding increase in value — if no PBM is in place to reprice the bill. Third-party billers accounted for approximately 5% of all medications processed by Express Scripts for injured workers in 2014, but the unnecessary additional costs can still be significant. Exhibit 6 indicates the top five medications processed by third-party billers.

<table>
<thead>
<tr>
<th>MEDICATION</th>
<th>PERCENTAGE OF PRESCRIPTIONS PROCESSED BY THIRD-PARTY BILLERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>hydrocodone/acetaminophen</td>
<td>16.8%</td>
</tr>
<tr>
<td>ibuprofen</td>
<td>8.3%</td>
</tr>
<tr>
<td>cyclobenzaprine</td>
<td>7.3%</td>
</tr>
<tr>
<td>tramadol</td>
<td>6.3%</td>
</tr>
<tr>
<td>naproxen</td>
<td>4.9%</td>
</tr>
<tr>
<td>All other</td>
<td>56.4%</td>
</tr>
</tbody>
</table>
SUBOPTIMAL CHANNEL USE

CHALLENGE

The Express Scripts Pharmacy provides the convenience of home delivery service for injured workers taking long-term medications related to their injuries. Safety is a key feature of our home delivery service. The pharmacy leverages state-of-the-art technology to conduct a comprehensive review of all medications an injured worker is taking to avoid dispensing errors, while driving efficiency into the process. Another benefit for injured workers is 24/7 access to pharmacists for individual consultations from the privacy of their homes.

Despite the value to injured workers, increasing the use of home delivery by the injured worker population remains a challenge.

RESEARCH AND CLINICAL

Ensuring safe, appropriate use of medications by injured workers is a fundamental objective of Express Scripts. As shown in Exhibit 7, the top 10 medications filled by injured workers through home delivery in 2014 accounted for just under 25% of all home-delivered prescriptions. These top 10 medications included therapy classes not typically seen in workers’ compensation, such as those to treat high cholesterol and hypertension. Given the nature of workers’ compensation, however, the treatment for some injured workers’ pre-existing medical conditions is sometimes deemed compensable, so coverage is provided under the workers’ compensation claim.

EXHIBIT 7: TOP 10 MEDICATIONS FILLED IN HOME DELIVERY BY INJURED WORKERS

<table>
<thead>
<tr>
<th>MEDICATION</th>
<th>THERAPY CLASS</th>
<th>PERCENTAGE OF RXS FILLED IN HOME DELIVERY</th>
</tr>
</thead>
<tbody>
<tr>
<td>gabapentin</td>
<td>Seizures</td>
<td>4.4%</td>
</tr>
<tr>
<td>Celebrex® (celecoxib)</td>
<td>Pain/Inflammation</td>
<td>3.9%</td>
</tr>
<tr>
<td>atorvastatin</td>
<td>High Blood Cholesterol</td>
<td>3.0%</td>
</tr>
<tr>
<td>duloxetine</td>
<td>Depression</td>
<td>2.3%</td>
</tr>
<tr>
<td>Toprol-XL® (metoprolol)</td>
<td>High Blood Pressure/Heart Disease</td>
<td>1.8%</td>
</tr>
<tr>
<td>tramadol</td>
<td>Pain</td>
<td>1.8%</td>
</tr>
<tr>
<td>amlodipine</td>
<td>High Blood Pressure/Heart Disease</td>
<td>1.7%</td>
</tr>
<tr>
<td>lisinopril</td>
<td>High Blood Pressure/Heart Disease</td>
<td>1.7%</td>
</tr>
<tr>
<td>hydrocodone/acetaminophen</td>
<td>Pain</td>
<td>1.7%</td>
</tr>
<tr>
<td>cyclobenzaprine</td>
<td>Muscle Relaxant</td>
<td>1.7%</td>
</tr>
<tr>
<td><strong>TOP 10 TOTAL</strong></td>
<td></td>
<td>24.1%</td>
</tr>
<tr>
<td><strong>ALL OTHER HOME DELIVERY</strong></td>
<td></td>
<td>75.9%</td>
</tr>
</tbody>
</table>
INTRODUCTION

THERAPEUTIC MIX (BRAND/GENERIC)

CHALLENGE

Therapeutic mix refers to the relative use of more-expensive drugs or less-expensive drugs within a therapy class. Therapeutic mix also explains the increases or decreases in overall cost due to shifts in utilization to more-expensive or less-expensive drugs, drug strengths or dose forms.

Although price inflation for a few generic drugs has captured media attention recently, it is not a new phenomenon. Similar price increases have occurred for specific generics over the past decade due to either supply disruptions resulting from manufacturer consolidation or temporary shortages of active ingredients. When fewer manufacturers make a specific generic, as with manufacturer consolidation, the industry is less equipped to absorb a disruption, such as an FDA closure at one facility, and price increases can result. Price increases also can occur when demand or regulatory requirements or actions create temporary shortages of active ingredients — the reason for the significant price increase for the muscle relaxant baclofen, the generic for Lioresal®, in 2014.

Looking at generic drugs as a group rather than individually, however, the magnitude of change in generic drug prices has decreased since 2012 when, in a wave dubbed the “patent cliff,” billions of dollars’ worth of blockbuster brand medications lost patent protection and paved the way for unprecedented generic competition. Although price increases for several commonly used generics have contributed to the slowing of the decline in prices, generic medications overall still deliver significant savings over brand-name alternatives, as Exhibit 8 clearly illustrates.

RESEARCH AND CLINICAL

Of the prescriptions filled by injured workers in our 2014 Drug Trend Report population, the average cost per prescription increased 8.3% between 2013 and 2014, due to the moderating effect of the 78.7% generic fill rate (GFR) on the 14.3% increase in the average cost of a branded medication prescription. However, the overall GFR masks much lower GFRs in many therapy classes, where considerable opportunities for payer savings could be realized by achieving the clinical maximum GFR.
Encouraging the use of generics over more-expensive brand alternatives, when clinically appropriate, keeps costs down. Express Scripts research indicates that for every 1% increase in the GFR, a payer can expect to reduce prescription drug costs by as much as 2%. Notably, three medications that are widely used to treat pain among injured workers – Celebrex®, Pennsaid® (diclofenac topical solution 1.5%) and Exalgo® (hydromorphone extended release) – lost patent protection in 2014, offering payers significant future savings if injured workers using these medications switch to their now-available lower-cost generic alternatives.

Exhibit 9 shows the wide variation in the GFRs for the top 10 workers’ compensation therapy classes. Understandably, the GFR for any therapy class is highly dependent on the availability of generic medications within the class.

Although news reports focus on a few outliers with significantly inflated costs, payers should remain confident that overall, generic medications continue to deliver significant cost savings. Exhibit 10, which presents the top 10 most-dispensed generic and brand medications to injured workers in 2014, illustrates the savings very clearly. Between 2013 and 2014, only four of the generics in the top 10 had a price increase greater than the consumer price index (CPI) inflation rate of 2.0%.

Large price increases for two commonly used drugs, a generic opioid combination (oxycodone/acetaminophen) and brand Celebrex, drove cost trend. The cost of oxycodone/acetaminophen, which captured 10.7% of 2014 market share in the class, likely increased because of generic supply-chain issues and new FDA regulations limiting the amount of acetaminophen allowed in combination opioid products. The price of brand Celebrex increased prior to the launch of generic formulations in December 2014, reflecting pharmaceutical manufacturers’ common practice of increasing the costs of branded drugs in the months leading up to their patent expirations.
workers’ compensation is heavily regulated by state and federal legislation, and navigating the many and varied rules can prove challenging for payers. The Express Scripts Compliance team has reviewed state and federal legislation related to workers’ compensation to identify key legislative policies that were enacted in 2014 and early 2015.

Formularies
- Workers’ compensation drug formularies are developed to assist with managing medications, such as opioids and other drugs, that although prescribed may not be necessary or related to a specific injury. Drug formulary successes in Texas and Washington prompted additional states — including Arkansas, California, Louisiana, Montana, Oklahoma and Tennessee — to adopt or consider implementation of drug formularies to help manage claims.

Physician-Dispensed Medications
- Twenty-six states have adopted or are considering rules related to physician-dispensed medications. The rules address a broad range of strategies, including specific fee schedule reimbursement methods based on the original manufacturer national drug code (NDC), exempting a dispensing fee allowance, dispensing limits by days’ supply or quantity, and specific billing and reporting requirements.

Compounded Medications
- Twenty states have adopted rules related to compounded medications that include provisions such as specific fee schedule reimbursement methods, which might include a dispensing and compounding fee, maximum overall limits/caps and ingredient-level billing and reporting requirements.

PAIN MEDICATIONS PRESCRIPTION DRUG MONITORING PROGRAM

In response to the growing crisis of opioid addiction and overdose deaths, efforts have intensified at both the federal and state levels to better control access to opioids and have met with significant success. After years of trending upward, prescription drug abuse declined in 10 states and did not increase in any of the 40 other states from 2010 to 2011 (the most recent year for which data are available). Every state except Missouri now has a prescription drug monitoring program (PDMP) that includes an electronic database of all prescriptions filled for controlled substances. Usage of the PDMP by prescribers, however, varies dramatically from state to state, and only 16 states require prescribers to use their PDMPs when writing prescriptions.
On average, payers spent $1,583.34 per injured worker for prescription medications in 2014.

TREND ANALYSIS

Overall trend for 2014 was 1.9%, reflecting a 7.0% increase in the average cost per prescription and a 5.4% decrease in PUPY utilization (see Exhibit 11). The top 10 therapy classes accounted for 80.9% of total workers’ compensation drug spending in 2014. On average, payers spent $1,583.34 per injured worker for prescription medications in 2014. However, unlike in 2013, when both the average cost per prescription and utilization increased, an increase in cost per prescription was offset by a decrease in utilization for 2014.

Increases in the average cost per prescription had a significant impact on trend. Compounded medications had the largest such increase (35.0%) from 2013 to 2014, contributing to an overall trend of 45.0% for the class. NSAIDs (12.8%) and opioids (11.5%) had significant increases in the average cost per prescription as well.

Utilization had a significant moderating impact on trend. The utilization of opioid medications, for example, dropped significantly (-10.9%) from 2013 to 2014, while antipsychotics saw a 5.9% drop in utilization. In fact, compounded medications, high blood cholesterol medications, NSAIDs and dermatologicals were the only classes in the top 10 that had an increase in utilization.

Dermatologicals and antidepressants both had decreases in the average cost per prescription as well as negative overall trend due to increased generic substitution. Lidocaine patch, generic for Lidoderm®, and duloxetine, generic for Cymbalta®, contributed to the decrease in the 11.5% average cost per prescription for antidepressants.

The overall trend for muscle relaxants was 2.5%, with the increase in the average cost per prescription (6.6%) moderated by a decrease (-3.9%) in utilization.

OxyContin® (oxycodone extended release) had the highest PUPY cost, accounting for 7.7% of total workers’ compensation drug spend (Exhibit 12). Even though opioids had a 10.9% decrease in utilization, they accounted for 36.0% of the 25 most commonly dispensed medications in 2014.

On average, payers spent $1,583.34 per injured worker for prescription medications in 2014.
Lyrica® (pregabalin) and gabapentin, the generic for Neurontin®, are two of the most highly utilized anticonvulsants, typically used for neuropathic pain. Utilization decreased for Lyrica (-4.5%) while it increased for gabapentin (4.9%), resulting in savings for payers.

The average cost per prescription for Celebrex, an NSAID used to treat pain, increased 21.2%; the increase was partly offset by a 9.2% drop in utilization, resulting in a total trend of 10.0% for the brand medication in 2014. The FDA approved the first generic versions of Celebrex in May 2014. Payers can expect a decrease starting in 2015 in the cost per prescription and a slight increase in utilization as generics became widely available starting in December 2014.

Two branded medications that were among the top 25 workers’ compensation medications in 2013, Cymbalta and Lidoderm, are now available as generics. Their generic versions, duloxetine and lidocaine patch, respectively, were in the top 25 medications by PUPY spend in 2014; both medications were introduced in late 2013, making 2014 their first full year of availability.

Compounded medications gabapentin and ketamine, both topical preparations, were also among the top 25 medications by PUPY spend, with overall trends of 66.9% and 11.5%, respectively. Ketamine is also prescribed off label for the management of pain, although pain-management guidelines do not consider compounds to be first-line therapy.

**EXHIBIT 11: COMPONENTS AND DRIVERS OF TREND FOR THE TOP 10 WORKERS’ COMPENSATION THERAPY CLASSES**

<table>
<thead>
<tr>
<th>RANK</th>
<th>THERAPY CLASS</th>
<th>AVERAGE</th>
<th>TREND</th>
<th>PUPY</th>
<th>TREND</th>
<th>NEW DRUGS</th>
<th>PUPY COST</th>
<th>TREND</th>
<th>OVERALL</th>
<th>PUPY COST</th>
<th>TREND</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Opioids</td>
<td>$146.27</td>
<td>11.5%</td>
<td>3.33</td>
<td>-10.9%</td>
<td>$0.76</td>
<td>0.2%</td>
<td>$487.59</td>
<td>-0.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>NSAIDs</td>
<td>$113.88</td>
<td>12.8%</td>
<td>1.39</td>
<td>0.2%</td>
<td>$0.53</td>
<td>0.4%</td>
<td>$158.33</td>
<td>13.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Anticonvulsants</td>
<td>$158.23</td>
<td>8.7%</td>
<td>0.99</td>
<td>-0.2%</td>
<td>$0.01</td>
<td>0.0%</td>
<td>$156.81</td>
<td>8.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Dermatologicals</td>
<td>$251.61</td>
<td>-11.7%</td>
<td>0.42</td>
<td>0.8%</td>
<td>$0.12</td>
<td>0.1%</td>
<td>$106.03</td>
<td>-10.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Antidepressants</td>
<td>$121.32</td>
<td>-11.5%</td>
<td>0.85</td>
<td>-9.3%</td>
<td>$0.26</td>
<td>0.2%</td>
<td>$103.79</td>
<td>-19.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Muscle Relaxants</td>
<td>$81.13</td>
<td>6.6%</td>
<td>1.05</td>
<td>-3.9%</td>
<td>$0.00</td>
<td>0.0%</td>
<td>$85.57</td>
<td>2.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Compounded Medications</td>
<td>$1,696.99</td>
<td>35.0%</td>
<td>0.03</td>
<td>6.8%</td>
<td>$0.34</td>
<td>0.8%</td>
<td>$59.39</td>
<td>45.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Ulcer Drugs</td>
<td>$129.62</td>
<td>-0.4%</td>
<td>0.41</td>
<td>-2.9%</td>
<td>$0.04</td>
<td>0.1%</td>
<td>$53.08</td>
<td>-3.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Antipsychotics</td>
<td>$449.76</td>
<td>8.3%</td>
<td>0.08</td>
<td>-5.9%</td>
<td>$0.00</td>
<td>0.0%</td>
<td>$35.27</td>
<td>1.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>High Blood Cholesterol</td>
<td>$129.25</td>
<td>4.4%</td>
<td>0.27</td>
<td>3.1%</td>
<td>$0.00</td>
<td>0.0%</td>
<td>$34.42</td>
<td>7.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>TOP 10 THERAPY CLASSES</strong></td>
<td>$144.88</td>
<td>7.0%</td>
<td>8.82</td>
<td>-5.8%</td>
<td>$2.05</td>
<td>0.2%</td>
<td>$1,280.29</td>
<td>0.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>OTHER THERAPY CLASSES</strong></td>
<td>$104.64</td>
<td>7.4%</td>
<td>2.80</td>
<td>-4.4%</td>
<td>$9.63</td>
<td>3.4%</td>
<td>$303.05</td>
<td>6.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td>$135.17</td>
<td>7.0%</td>
<td>11.63</td>
<td>-5.4%</td>
<td>$11.68</td>
<td>0.8%</td>
<td>$1,583.34</td>
<td>1.9%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Exhibit 12: Trend Components for the Top 25 Workers’ Compensation Medications

**Ranked by 2014 Per-User-Per-Year (PUPY) Spend**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Medication</th>
<th>Therapy Class</th>
<th>2014 PUPY Spend</th>
<th>% of Total Spend</th>
<th>PUPY Spend Change from 2013</th>
<th>Cost/RX</th>
<th>Utilization</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>OxyContin® (oxycodone extended release)</td>
<td>Opioids</td>
<td>$121.25</td>
<td>7.7%</td>
<td>-$13.49</td>
<td>-2.4%</td>
<td>-7.8%</td>
<td>-10.0%</td>
</tr>
<tr>
<td>2</td>
<td>Lyrica® (pregabalin)</td>
<td>Anticonvulsants</td>
<td>$84.15</td>
<td>5.3%</td>
<td>$9.96</td>
<td>18.8%</td>
<td>-4.5%</td>
<td>13.4%</td>
</tr>
<tr>
<td>3</td>
<td>Celebrex® (celecoxib)</td>
<td>NSAIDs</td>
<td>$70.80</td>
<td>4.5%</td>
<td>$6.45</td>
<td>21.2%</td>
<td>-9.2%</td>
<td>10.0%</td>
</tr>
<tr>
<td>4</td>
<td>hydrocodone/acetaminophen</td>
<td>Opioids</td>
<td>$54.37</td>
<td>3.4%</td>
<td>-$4.31</td>
<td>12.4%</td>
<td>-17.5%</td>
<td>-7.3%</td>
</tr>
<tr>
<td>5</td>
<td>duloxetine</td>
<td>Antidepressants</td>
<td>$50.52</td>
<td>3.2%</td>
<td>$49.96</td>
<td>5.7%</td>
<td>8,358.9%</td>
<td>8,841.9%</td>
</tr>
<tr>
<td>6</td>
<td>lidocaine</td>
<td>Dermatologicals</td>
<td>$48.77</td>
<td>3.1%</td>
<td>$36.72</td>
<td>7.7%</td>
<td>276.1%</td>
<td>304.9%</td>
</tr>
<tr>
<td>7</td>
<td>gabapentin</td>
<td>Anticonvulsants</td>
<td>$39.75</td>
<td>2.5%</td>
<td>$1.47</td>
<td>-1.0%</td>
<td>4.9%</td>
<td>3.8%</td>
</tr>
<tr>
<td>8</td>
<td>oxycodone/acetaminophen</td>
<td>Opioids</td>
<td>$37.71</td>
<td>2.4%</td>
<td>$9.39</td>
<td>44.4%</td>
<td>-7.7%</td>
<td>33.2%</td>
</tr>
<tr>
<td>9</td>
<td>gabapentin</td>
<td>Antidepressants</td>
<td>$30.04</td>
<td>1.9%</td>
<td>$12.04</td>
<td>33.2%</td>
<td>25.3%</td>
<td>66.9%</td>
</tr>
<tr>
<td>10</td>
<td>fentanyl</td>
<td>Opioids</td>
<td>$26.21</td>
<td>1.7%</td>
<td>-$3.76</td>
<td>-4.3%</td>
<td>-8.6%</td>
<td>-12.5%</td>
</tr>
<tr>
<td>11</td>
<td>oxycodone</td>
<td>Opioids</td>
<td>$23.55</td>
<td>1.5%</td>
<td>$4.29</td>
<td>22.1%</td>
<td>0.1%</td>
<td>22.3%</td>
</tr>
<tr>
<td>12</td>
<td>morphine sulfate ER</td>
<td>Opioids</td>
<td>$23.30</td>
<td>1.5%</td>
<td>$1.71</td>
<td>12.8%</td>
<td>-4.3%</td>
<td>7.9%</td>
</tr>
<tr>
<td>13</td>
<td>Percocet® (oxycodone/acetaminophen)</td>
<td>Opioids</td>
<td>$20.15</td>
<td>1.3%</td>
<td>$2.12</td>
<td>26.3%</td>
<td>-11.5%</td>
<td>11.8%</td>
</tr>
<tr>
<td>14</td>
<td>Opana® ER (oxymorphone extended release)</td>
<td>Opioids</td>
<td>$19.56</td>
<td>1.2%</td>
<td>-$3.47</td>
<td>4.4%</td>
<td>-18.6%</td>
<td>-15.1%</td>
</tr>
<tr>
<td>15</td>
<td>flurbiprofen</td>
<td>NSAIDs</td>
<td>$18.44</td>
<td>1.2%</td>
<td>$5.91</td>
<td>42.3%</td>
<td>2.4%</td>
<td>45.7%</td>
</tr>
<tr>
<td>16</td>
<td>Abilify® (aripiprazole)</td>
<td>Antipsychotics</td>
<td>$17.71</td>
<td>1.1%</td>
<td>$1.28</td>
<td>17.6%</td>
<td>-8.4%</td>
<td>7.8%</td>
</tr>
<tr>
<td>17</td>
<td>metaxalone</td>
<td>Muscle Relaxants</td>
<td>$16.71</td>
<td>1.1%</td>
<td>-$1.06</td>
<td>2.2%</td>
<td>-8.0%</td>
<td>-6.0%</td>
</tr>
<tr>
<td>18</td>
<td>omeprazole</td>
<td>Ulcer Drugs</td>
<td>$16.55</td>
<td>1.0%</td>
<td>$1.04</td>
<td>2.4%</td>
<td>4.2%</td>
<td>6.7%</td>
</tr>
<tr>
<td>19</td>
<td>Flector® (diclofenac epolamine topical patch)</td>
<td>Dermatologicals</td>
<td>$16.53</td>
<td>1.0%</td>
<td>-$1.48</td>
<td>8.5%</td>
<td>-15.4%</td>
<td>-8.2%</td>
</tr>
<tr>
<td>20</td>
<td>ketamine (for compounds)</td>
<td>Compounded Medications</td>
<td>$15.94</td>
<td>1.0%</td>
<td>$1.64</td>
<td>10.0%</td>
<td>1.3%</td>
<td>11.5%</td>
</tr>
<tr>
<td>21</td>
<td>Nexium® (esomeprazole magnesium)</td>
<td>Ulcer Drugs</td>
<td>$15.83</td>
<td>1.0%</td>
<td>-$0.82</td>
<td>12.7%</td>
<td>-15.6%</td>
<td>-4.9%</td>
</tr>
<tr>
<td>22</td>
<td>tizanidine</td>
<td>Muscle Relaxants</td>
<td>$15.09</td>
<td>1.0%</td>
<td>$0.69</td>
<td>5.2%</td>
<td>-0.4%</td>
<td>4.8%</td>
</tr>
<tr>
<td>23</td>
<td>Nucynta® (tapentadol)</td>
<td>Opioids</td>
<td>$13.18</td>
<td>0.8%</td>
<td>-$0.64</td>
<td>11.2%</td>
<td>-14.2%</td>
<td>-4.6%</td>
</tr>
<tr>
<td>24</td>
<td>cyclobenzaprine</td>
<td>Muscle Relaxants</td>
<td>$13.03</td>
<td>0.8%</td>
<td>-$2.05</td>
<td>13.6%</td>
<td>-0.1%</td>
<td>-13.6%</td>
</tr>
<tr>
<td>25</td>
<td>Duragesic® (fentanyl transdermal system)</td>
<td>Opioids</td>
<td>$12.62</td>
<td>0.8%</td>
<td>$0.34</td>
<td>12.3%</td>
<td>-8.5%</td>
<td>2.8%</td>
</tr>
</tbody>
</table>
OPIOIDS

TRENDS

- Opioids continue to be the most-expensive and highly utilized class of medications for work-related injuries, accounting for 30.8% of PUPY spend and 28.6% of PUPY utilization.
- Exhibit 12 shows that 10 of the top 25 workers’ compensation medications were opioids.
- Similar to the 2013 trend, the 2014 trend for opioids was almost flat (-0.5%), with a PUPY cost of $487.59. A 10.9% decrease in PUPY utilization nearly offset an 11.5% increase in the average cost per prescription.
- The increase in the average cost per prescription for opioids was possibly due to generic price inflation. On average, the cost per prescription for opioids increased $15.04 from 2013 to 2014, rising from $131.23 to $146.27.

TOP FIVE OPIOID MEDICATIONS

RANKED BY 2014 PER-USER-PER-YEAR (PUPY) UTILIZATION

<table>
<thead>
<tr>
<th>MEDICATION</th>
<th>PUPY UTILIZATION 2013</th>
<th>PUPY UTILIZATION 2014</th>
<th>COST/RX 2013</th>
<th>COST/RX 2014</th>
<th>TREND</th>
</tr>
</thead>
<tbody>
<tr>
<td>hydrocodone/acetaminophen</td>
<td>1.56</td>
<td>1.28</td>
<td>$37.72</td>
<td>$42.39</td>
<td>12.4%</td>
</tr>
<tr>
<td>tramadol</td>
<td>0.41</td>
<td>0.39</td>
<td>$31.13</td>
<td>$31.49</td>
<td>1.2%</td>
</tr>
<tr>
<td>oxycodone/acetaminophen</td>
<td>0.39</td>
<td>0.36</td>
<td>$73.24</td>
<td>$105.72</td>
<td>44.4%</td>
</tr>
<tr>
<td>oxycodone</td>
<td>0.25</td>
<td>0.25</td>
<td>$76.37</td>
<td>$93.27</td>
<td>22.1%</td>
</tr>
<tr>
<td>OxyContin® (oxycodone extended release)</td>
<td>0.22</td>
<td>0.21</td>
<td>$599.52</td>
<td>$585.17</td>
<td>-2.4%</td>
</tr>
</tbody>
</table>

A CLOSER LOOK

- **Hydrocodone/acetaminophen**, now considered a Schedule II controlled substance, accounted for 38.5% of all 2014 workers’ compensation opioid prescriptions. A 12.4% increase in the average cost per prescription and a 17.5% decrease in PUPY utilization resulted in a trend of -7.3%.
- **Tramadol**, the generic for Ultram®, had a 3.6% decrease in PUPY utilization and a 1.2% increase in the average cost per prescription, resulting in a total trend of -2.5%. In August 2014, tramadol was classified as a Schedule IV controlled substance, indicating a potential for abuse of this previously uncontrolled opioid. Decreased utilization may be one result of the reclassification.
- The average cost per prescription of **oxycodone/acetaminophen** and **oxycodone** increased 44.4% and 22.1%, respectively, possibly due to generic price inflation resulting from the consolidation of suppliers. Public health concerns regarding the misuse and abuse of opioids continue to be highly publicized. Four opioids currently have approved abuse-deterrent labeling — reformulated OxyContin®, Targiniq ER® (oxycodone/naloxone extended-release tablets), Embeda® (morphine/naltrexone extended-release (ER) capsules and Hyisingla™ ER (hydrocodone bitartrate). These new medications may continue to drive up costs due to brand inflation.

BY THE NUMBERS

- **-0.5%** TREND
- **$487.59** COST PUPY
- **3.33** #RX PUPY
- **$146.27** AVERAGE COST/RX
**NSAIDs**

**Trends**

- NSAIDs are the second-most-widely-utilized category of medication for work-related injuries, often used to reduce pain and inflammation. Injured workers may use oral or topical NSAIDs.

- NSAIDs had a total trend of 13.4% in 2014, resulting from a 12.8% increase in the average cost per prescription and a 0.2% increase in PUPY utilization.

- The average cost per prescription increased by double digits for two (ibuprofen and Celebrex) of the top five NSAID medications, ranked by 2014 PUPY utilization.

**A Closer Look**

- The average cost per prescription for the most-used NSAID, ibuprofen, increased 18.9% in 2014.

- The 2014 PUPY cost for Celebrex ($70.80), the only COX-2 inhibitor on the U.S. market, was more than six times the PUPY cost of the next most-utilized NSAID, meloxicam ($11.33). The average cost per prescription for Celebrex increased 21.2% in 2014, likely the result of the prevalent practice of brand manufacturers of increasing a brand’s price before the medication loses patent protection. As previously mentioned, although the FDA approved the first generic versions of Celebrex in May 2014, settlements delayed their releases until December 2014.

- Nabumetone ranked fifth among NSAIDs in 2014, replacing diclofenac sodium extended release in the top five. Its PUPY utilization of 0.06 in 2014 was almost identical to that in 2013 (0.05).

---

**Top Five Nonsteroidal Anti-Inflammatory Drugs (NSAIDs)**

**Ranked by 2014 Per-User-Per-Year (PUPY) Utilization**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ibuprofen</td>
<td>0.38</td>
<td>0.39</td>
<td>$12.77</td>
<td>$15.19</td>
<td>18.9%</td>
</tr>
<tr>
<td>Celebrex® (celecoxib)</td>
<td>0.29</td>
<td>0.26</td>
<td>$225.52</td>
<td>$273.36</td>
<td>21.2%</td>
</tr>
<tr>
<td>meloxicam</td>
<td>0.19</td>
<td>0.21</td>
<td>$52.88</td>
<td>$54.18</td>
<td>2.5%</td>
</tr>
<tr>
<td>naproxen</td>
<td>0.18</td>
<td>0.18</td>
<td>$25.40</td>
<td>$23.85</td>
<td>-6.1%</td>
</tr>
<tr>
<td>nabumetone</td>
<td>0.05</td>
<td>0.06</td>
<td>$59.01</td>
<td>$55.22</td>
<td>-6.4%</td>
</tr>
</tbody>
</table>

**By the Numbers**

- **13.4% Trend**
- **$158.33 Cost PUPY**
- **1.39 RX PUPY**
- **$113.88 Average Cost/Rx**
ANTICONVULSANTS

TRENDS

- Anticonvulsants, often used to treat neuropathic pain and other conditions such as fibromyalgia, had a trend of 8.5% from 2013 to 2014, driven by an 8.7% increase in the average cost per prescription that was moderated slightly by a 0.2% decrease in the PUPY utilization.

- The average cost per prescription increased for Lyrica and topiramate, two of the top five anticonvulsant medications, ranked by 2014 PUPY utilization.

A CLOSER LOOK

- The **top five medications** by PUPY utilization accounted for more than 91.0% of workers’ compensation anticonvulsant medications in 2014, with the top two (gabapentin and Lyrica) together accounting for 75.0% of utilization. A likely reason is that these medications have multiple uses, including treating neuropathic pain and fibromyalgia.

- The utilization of **gabapentin** increased 4.9%. But because gabapentin’s average cost per prescription decreased 1.0%, the total trend for the medication was 3.8%.

- **Topiramate** had a 2.2% trend, influenced by a 0.6% increase in the average cost per prescription (following a 9.0% decrease in the average cost per prescription in 2013).

- A **4.5%** drop in the PUPY utilization for **Lyrica** moderated an increase of 18.8% in the average cost per prescription, resulting in a total trend of 13.4%.

- Generic **topiramate** had a **2.2%** trend, influenced by a 0.6% increase in the average cost per prescription (following a 9.0% decrease in the average cost per prescription in 2013).

<table>
<thead>
<tr>
<th>MEDICATION</th>
<th>PUPY UTILIZATION</th>
<th>COST/RX</th>
<th>TEND</th>
</tr>
</thead>
<tbody>
<tr>
<td>gabapentin</td>
<td>0.47</td>
<td>$81.31</td>
<td>-1.0%</td>
</tr>
<tr>
<td>Lyrica® (pregabalin)</td>
<td>0.27</td>
<td>$276.72</td>
<td>18.8%</td>
</tr>
<tr>
<td>clonazepam</td>
<td>0.09</td>
<td>$24.98</td>
<td>-4.1%</td>
</tr>
<tr>
<td>topiramate</td>
<td>0.06</td>
<td>$117.40</td>
<td>0.6%</td>
</tr>
<tr>
<td>lamotrigine</td>
<td>0.02</td>
<td>$113.91</td>
<td>-5.4%</td>
</tr>
</tbody>
</table>

BY THE NUMBERS

<table>
<thead>
<tr>
<th>TREND</th>
<th>COST PUPY</th>
<th>RX PUPY</th>
<th>AVERAGE COST/RX</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.5%</td>
<td>$156.81</td>
<td>0.99</td>
<td>$158.23</td>
</tr>
</tbody>
</table>
THE EXPRESS SCRIPTS 2014 DRUG TREND REPORT

WORKERS’ COMPENSATION

TREND ANALYSIS

DERMATOLOGICALS

TRENDS

• The trend for the class was -10.9%, driven mainly by a decrease in the average cost per prescription (-11.7%).

• Among the top five medications ranked by 2014 PUPY utilization, four had increases in the average cost per prescription ranging from 5.7% to 18.5%. The largest increase was for Lidoderm.

TOP FIVE DERMATOLOGICALS

RANKED BY 2014 PER-USER-PER-YEAR (PUPY) UTILIZATION

<table>
<thead>
<tr>
<th>MEDICATION</th>
<th>PUPY UTILIZATION</th>
<th>COST/RX</th>
<th>TRENDS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
<td>2014</td>
<td>2013</td>
</tr>
<tr>
<td>lidocaine</td>
<td>0.04</td>
<td>0.16</td>
<td>$284.65</td>
</tr>
<tr>
<td>Voltaren® Gel (diclofenac sodium topical gel)</td>
<td>0.08</td>
<td>0.08</td>
<td>$94.14</td>
</tr>
<tr>
<td>Flector® (diclofenac epolamine topical patch)</td>
<td>0.05</td>
<td>0.04</td>
<td>$343.41</td>
</tr>
<tr>
<td>Lidoderm® (lidocaine patch, 5%)</td>
<td>0.15</td>
<td>0.02</td>
<td>$406.28</td>
</tr>
<tr>
<td>Polar Frost™ (menthol, 4%)</td>
<td>0.00</td>
<td>0.01</td>
<td>$21.89</td>
</tr>
</tbody>
</table>

A CLOSER LOOK

• The generic version of Lidoderm, lidocaine, launched in September 2013, and its generic exclusivity expired in March 2014. Generic lidocaine became the most utilized dermatological medication and had a 304.9% trend. The total trend was influenced by a 276.1% increase in PUPY utilization and a 7.7% increase in the average cost per prescription.

• Lidoderm, whose PUPY utilization was 0.15 in 2013, dropped to a PUPY utilization of only 0.02 in 2014. Its total trend decreased 81.1% between 2013 and 2014, influenced largely by a decrease in utilization (84.1%) due to increased use of the generic alternative, lidocaine.

• Voltaren® Gel (diclofenac sodium topical gel) is an NSAID indicated for the relief of pain from osteoarthritis of joints amenable to topical treatment, such as the knees and hands. Among the four dermatologicals whose average cost per prescription increased in 2014, Voltaren Gel had the lowest increase (5.7%).

• Polar Frost, a topical agent for pain and inflammation that is also available over the counter, had a large decrease in price (-63.5%) between 2013 and 2014.
ANTIDEPRESSANTS

TRENDS

• In addition to their primary indications for relieving depression, several antidepressants have secondary indications that include the treatment of nerve pain and anxiety.

• The overall trend for the antidepressants class was -19.6%, reflecting decreases in both the average cost per prescription (-11.5%) and utilization (-9.3%).

• The trend for the class was heavily influenced by the availability of multiple generics for Cymbalta, which were launched in December 2013.

TOP FIVE ANTIDEPRESSANTS

RANKED BY 2014 PER-USER-PER-YEAR (PUPY) UTILIZATION

<table>
<thead>
<tr>
<th>MEDICATION</th>
<th>2013 UTILIZATION</th>
<th>2014 UTILIZATION</th>
<th>2013 COST/RX</th>
<th>2014 COST/RX</th>
<th>TREND</th>
</tr>
</thead>
<tbody>
<tr>
<td>duloxetine</td>
<td>0.00</td>
<td>0.23</td>
<td>$210.94</td>
<td>$222.99</td>
<td>5.7%</td>
</tr>
<tr>
<td>amitriptyline</td>
<td>0.10</td>
<td>0.10</td>
<td>$12.48</td>
<td>$14.01</td>
<td>12.3%</td>
</tr>
<tr>
<td>trazodone</td>
<td>0.10</td>
<td>0.09</td>
<td>$17.13</td>
<td>$17.14</td>
<td>0.0%</td>
</tr>
<tr>
<td>sertraline</td>
<td>0.05</td>
<td>0.05</td>
<td>$36.14</td>
<td>$37.32</td>
<td>3.3%</td>
</tr>
<tr>
<td>escitalopram</td>
<td>0.05</td>
<td>0.05</td>
<td>$104.57</td>
<td>$92.19</td>
<td>-11.8%</td>
</tr>
</tbody>
</table>

A CLOSER LOOK

• The FDA has approved more than a half dozen generic versions of Cymbalta – a selective serotonin-norepinephrine reuptake inhibitor (SNRI) indicated to treat depression and neuropathic pain. As a result of its full year of availability, generic duloxetine replaced Cymbalta as the class leader among antidepressants in 2014 PUPY utilization. In 2014 duloxetine’s cost-per-prescription trend was 5.7%. Cymbalta lost its place in the top five.

• Of the top five antidepressants, only escitalopram experienced decreases in both the average cost per prescription (-11.8%) and total trend (-21.2%).

BY THE NUMBERS

<table>
<thead>
<tr>
<th>TREND</th>
<th>COST PUPY</th>
<th>RX PUPY</th>
<th>AVERAGE COST/RX</th>
</tr>
</thead>
<tbody>
<tr>
<td>-19.6%</td>
<td>$103.79</td>
<td>0.85</td>
<td>$121.32</td>
</tr>
</tbody>
</table>

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TREND ANALYSIS

OTHER THERAPY CLASSES

Muscle Relaxants
Muscle relaxants are used as supplementary nonopioid medications in the short-term treatment of an injury. The PUPY cost trend for muscle relaxants was 2.5%, due to a 6.6% increase in the average cost per prescription, moderated by a 3.9% decrease in utilization. Three medications (cyclobenzaprine, tizanidine and carisoprodol) accounted for 69.0% of all utilization in the class. Cyclobenzaprine, the most commonly prescribed muscle relaxant in 2014, has been available generically for decades. It also is the active ingredient in Amrix® (cyclobenzaprine extended-release capsules), Flexeril® (cyclobenzaprine tablets, 5mg and 10mg) and Fexmid® (cyclobenzaprine tablets, 5mg). Its average cost per prescription decreased 13.6% while its utilization was flat, resulting in a decrease in total trend of 13.6%. Carisoprodol, generic for Soma®, had a decrease in utilization of 21.5%. The average cost per prescription for baclofen increased 58.5%, possibly due to generic-price inflation.

"The total trend for compounded medications, at 45.0%, was the highest among the top 10 classes."

Compounded Medications
Products grouped under the generic product identifier (GPI) of “96” from MediSpan are sold as bulk powders or liquids for use in preparing compounded medications. In workers’ compensation, the utilization of compounded medications continues to increase. The top five ingredients in this therapy class by PUPY spend were gabapentin, ketamine, fluticasone propionate, tramadol and meloxicam. Compounded medications using these five ingredients accounted for 86.1% of all prescriptions in the class. The total trend for compounded medications, at 45.0%, was the highest among the top 10 classes; it was driven by increases in both the average cost per prescription (35.0%) and utilization (6.8%). The cost to payers for compounded medications averaged $1,696.99 per prescription in 2014.

Ulcer Drugs
Ulcer drugs, particularly proton pump inhibitors, are used to treat gastroesophageal reflux disease (GERD) and in risk reduction of NSAID-associated gastric ulcer, among other indications. These medications may be prescribed along with NSAIDs to help prevent stomach ulcers for injured workers at high risk for developing them. The 2014 PUPY cost trend for the class was -3.3%, impacted by a 2.9% decrease in utilization as well as a slight decrease in the average cost per prescription (-0.4%).

With trends of -4.9%, 6.7% and 8.8%, respectively, Nexium® (esomeprazole magnesium), omeprazole and pantoprazole accounted for 68.7% of ulcer drug utilization. Whereas the two generics, omeprazole and pantoprazole, had increases in utilization of 4.2% and 5.2%, respectively, the brand drug Nexium had a 15.6% drop in utilization. All three medications had increases in their average cost per prescription: 2.4% for omeprazole, 3.4% for pantoprazole and 12.7% for Nexium.

Generics for Nexium were delayed until February 2015 by quality issues of the originally approved generic manufacturer; however, the FDA approved the marketing and sale of over-the-counter (OTC) Nexium in March 2014. Other ulcer drugs that were already OTC include Prilosec® (omeprazole), Prevacid 24HR® (lansoprazole) and generics. Omeprazole led this class in PUPY cost at $16.55.

"With trends of -4.9%, 6.7% and 8.8%, respectively, Nexium® (esomeprazole magnesium), omeprazole and pantoprazole accounted for 68.7% of ulcer drug utilization."
Antipsychotics

Some antipsychotic medications may be used by injured workers for the treatment of depression. Similar to 2013 trends, quetiapine, generic for Seroquel®, was the most-prescribed medication in this class in 2014. However, it had decreases in both the average cost per prescription (-21.9%) and utilization (-2.6%), resulting in a total trend of -24.0%.

Along with quetiapine, Abilify® (aripiprazole), Seroquel XR® (quetiapine extended release), olanzapine (generic for Zyprexa®) and Latuda® (lorazepine) were the top drugs in this class by PUPY spend (83.5% cumulative) in 2014. The PUPY cost for antipsychotics increased 1.9% – from $34.60 in 2013 to $35.27 in 2014. The trend was influenced by an 8.3% increase in the average cost per prescription, offset by a 5.9% decrease in PUPY utilization.

High Blood Cholesterol

Despite being nonformulary for most Express Scripts Workers’ Compensation clients (i.e., review/approval by the payer is required before the medication can be filled), for the first time, antihyperlipidemics – drugs that manage high cholesterol – were among the top 10 therapy classes for workers’ compensation, ranked by 2014 PUPY cost.

Trend may have been influenced by the November 2013 release of the updated American College of Cardiology/American Heart Association Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults. Unlike its predecessor, the new guideline does not recommend trying to achieve specific levels of low-density lipoproteins (LDL). Instead, the new guideline recommends the use of risk-factor ratings to predict a patient’s likelihood of having a heart attack or stroke in the next 10 years. Together, the change in the risk calculation and the guideline’s emphasis on the use of HMG-CoA reductase inhibitors (“statins”) to control cholesterol increase the number of patients who are eligible for statin therapy.

Three of the top five high blood cholesterol medications ranked by 2014 PUPY spend either are or contain statins: atorvastatin, Crestor® (rosuvastatin) and Vytorin® (ezetimibe/simvastatin). The PUPY cost trend for the antihyperlipidemics class was 7.6%, reflecting a 4.4% increase in the average cost per prescription and a 3.1% increase in utilization. Atorvastatin had a 7.1% increase in spend, driven largely by an 11.0% increase in utilization, which was offset slightly by a 3.5% decrease in the average cost per prescription. Crestor’s trend was 18.2%, influenced by increases in both the average cost per prescription (10.4%) and utilization (7.1%). Patent protection for Crestor expires in May 2016.

Niacin extended release, the generic for Niaspan®, had a 341.5% trend, due to a 302.4% increase in utilization and a 9.7% increase in the average cost per prescription. Introduced in September 2013, niacin extended release was the only generic in this class on the market until several others were launched in March 2014.

For the first time, antihyperlipidemics – drugs that manage high cholesterol – were among the top 10 therapy classes for workers’ compensation.

Workers’ compensation payers should be aware of a new group of specialty injectables in development for the treatment of hypercholesterolemia (high blood cholesterol), with the first ones in the class scheduled for action by the FDA in summer 2015; if approved, they may impact trend. These monoclonal antibodies – which target proprotein convertase subtilisin/kexin (PCSK9), an enzyme involved in balancing cholesterol levels – will be classified as specialty medications. PCSK9 inhibitors are expected to cost between $4,000 and $12,000 per year compared to the much lower cost range of $150 to $2,400 for generic statins.
SPECIALTY MEDICATIONS

Specialty medications, which usually treat relatively small groups of patients with complex, chronic conditions, typically are expensive. Most have special-handling requirements. In addition, patients taking specialty medications may need ongoing clinical monitoring and more intensive assistance and guidance from pharmacists or other caregivers.

Many occupations have specific risks such as HIV, hepatitis C or other blood-borne pathogens resulting from needle sticks or other exposures (healthcare providers and first responders), black lung disease (coal miners) and Lyme disease (outdoor workers/landscapers or park employees). Additionally, some consequential conditions, including post-operative blood clots, osteoarthritis knee pain and even organ failure, are treated with specialty medications. Although specialty medications represent less than 1% of medications used by injured workers, their costs may impact payers significantly.

A look at three types of specialty medication suggests the potential impact of this class on injured workers and payers:

- **Hepatitis C** – The pharmacy landscape underwent a seismic change in 2014. Highly effective, better-tolerated new treatments for nonorphan conditions like hepatitis C were introduced in the U.S. market at unsustainable, orphan-drug pricing. The new generation of oral medicines to treat hepatitis C includes Olysio® (simeprevir) and Sovaldi® (sofosbuvir), which became available in 2013, and Harvoni® (ledipasvir/sofosbuvir), launched in 2014. Sovaldi costs $84,000 for one 12-week regimen per patient, but it requires co-administration with ribavirin, either with or without pegylated interferon. Harvoni costs even more – $94,500 for a 12-week supply – but taking it eliminates the need for pegylated interferon and ribavirin. The cure rate for patients treated with Harvoni is about 93%. On Dec. 19, 2014, the FDA approved Viekira Pak™ (ombitasvir/paritaprevir/ritonavir tablets co-packaged with dasabuvir tablets) for the treatment of patients with chronic hepatitis C virus (HCV) genotype 1 infection. Other all-oral regimens are expected to compete in the hepatitis C market beginning in the second half of 2015.
• **Biologic drugs** — Biologic drugs are expensive, typically injectable, complex, protein-based drugs that fall under the specialty drug class. Examples include insulin, monoclonal antibodies to block inflammation in rheumatoid arthritis (RA), and a range of drugs to treat cancer, multiple sclerosis (MS) and other serious diseases. Unlike traditional medications, which mostly have generic equivalents once their patents expire, biologics cannot be duplicated exactly because they are produced in ever-changing biological systems. Each batch of a biologic drug is slightly different from others.

• **Biosimilars** — Biosimilars are biologic products with comparable activity to and no appreciable differences in potency, purity or safety from the original biologic. As such, they hold great potential for reducing the costs of biologic medications. Although biosimilars have been used safely in Europe, Japan and other countries for several years — with prices around 30% lower than their brand-name counterparts — the FDA did not have a defined pathway for biosimilar approval until recently. The agency finalized guidelines for biosimilar review, accepted biosimilar applications and scheduled the first two biosimilar medications for approval consideration in 2015. Zarxio® — Novartis’ biosimilar version of Amgen’s Neupogen® (filgrastim), a drug used to decrease rates of infection in certain cancer patients during chemotherapy — was approved in early March. An August 2015 review date is set for Remsima™, Celltrion’s biosimilar version of Johnson & Johnson’s drug, Remicade® (infliximab), which is used to treat inflammatory conditions such as psoriasis and RA. FDA guidance on biosimilar interchangeability, labeling and statistical issues, as well as additional general questions and answers also are expected in 2015.

The workers’ compensation trends for Neupogen and Remicade were -87.5% and -87.6%, respectively, between 2013 and 2014. Neupogen’s negative trend was driven by decreases both in the average cost per prescription (-37.0%), which dropped to $1,036.57 in 2014, and in utilization (-80.1%). Remicade’s negative trend was also due to a decrease in the average cost per prescription (-4.8%), to $7,568.83 in 2014, as well as in utilization (-86.9%).
SPECIALTY MEDICATION TRENDS

Specialty medications have the potential to increase drug spend significantly because their costs are rising rapidly. Between 2013 and 2014, spend on specialty medications increased 30.4%. New specialty medications offer clinical options for the treatment of occupational injuries and the hope of improved medical outcomes, but the cost pressures they present prove challenging to payers in the management of these medications.

Eight of the top 15 specialty medications by PUPY spend had double-digit increases between 2013 and 2014, and one had a triple-digit increase. Only two of the top 15 medications, Enbrel® (etanercept) and Humira® (adalimumab), had decreases in trend. Sovaldi and Olysio were new additions to the top 15, pushing out tacrolimus and Atripla® (efavirenz/emtricitabine/tenofovir).

The trend for specialty medications was 30.4% between 2013 and 2014, driven by an increase in both the average cost per prescription (19.8%) and utilization (8.8%). In 2014 the average cost per prescription for a specialty medication was $1,303.69, nearly 10 times that of a typical traditional medication.

EXHIBIT 13: TREND COMPONENTS FOR THE TOP 15 WORKERS’ COMPENSATION SPECIALTY MEDICATIONS

<table>
<thead>
<tr>
<th>RANK</th>
<th>MEDICATION</th>
<th>THERAPY CLASS</th>
<th>2014</th>
<th>TRENDS</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>PUPY SPEND</td>
<td>COST/RX</td>
<td>COST/RX</td>
<td>UTILIZATION</td>
<td>TOTAL</td>
</tr>
<tr>
<td>1</td>
<td>Sovaldi® (sofosbuvir)</td>
<td>Hepatitis C</td>
<td>$5.20</td>
<td>$24,277.85</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2</td>
<td>enoxaparin</td>
<td>Anticoagulants</td>
<td>$5.01</td>
<td>$724.09</td>
<td>12.3%</td>
<td>-7.3%</td>
<td>4.1%</td>
</tr>
<tr>
<td>3</td>
<td>Enbrel® (etanercept)</td>
<td>Inflammatory Conditions</td>
<td>$3.12</td>
<td>$2,716.82</td>
<td>13.2%</td>
<td>-17.3%</td>
<td>-6.4%</td>
</tr>
<tr>
<td>4</td>
<td>Truvada® (emtricitabine/tenofovir)</td>
<td>HIV</td>
<td>$3.10</td>
<td>$819.77</td>
<td>-1.0%</td>
<td>45.4%</td>
<td>43.9%</td>
</tr>
<tr>
<td>5</td>
<td>Synvisc-One® (hylan G-F 20)</td>
<td>Osteoarthritis</td>
<td>$2.53</td>
<td>$1,074.45</td>
<td>-3.7%</td>
<td>67.0%</td>
<td>60.8%</td>
</tr>
<tr>
<td>6</td>
<td>Isentress® (raltegravir)</td>
<td>HIV</td>
<td>$2.14</td>
<td>$693.57</td>
<td>-13.5%</td>
<td>148.5%</td>
<td>115.1%</td>
</tr>
<tr>
<td>7</td>
<td>Olysio® (simeprevir)</td>
<td>Hepatitis C</td>
<td>$1.81</td>
<td>$20,505.25</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>8</td>
<td>Xyrem® (sodium oxybate)</td>
<td>Miscellaneous Central Nervous System Disorders</td>
<td>$1.81</td>
<td>$10,250.96</td>
<td>33.1%</td>
<td>41.6%</td>
<td>88.3%</td>
</tr>
<tr>
<td>9</td>
<td>Gleevec® (imatinib)</td>
<td>Oncology</td>
<td>$1.76</td>
<td>$6,962.99</td>
<td>60.2%</td>
<td>-14.1%</td>
<td>37.6%</td>
</tr>
<tr>
<td>10</td>
<td>Xolair® (omalizumab)</td>
<td>Asthma &amp; Allergy</td>
<td>$1.51</td>
<td>$3,117.91</td>
<td>4.8%</td>
<td>-0.7%</td>
<td>4.1%</td>
</tr>
<tr>
<td>11</td>
<td>Humira® (adalimumab)</td>
<td>Inflammatory Conditions</td>
<td>$1.25</td>
<td>$2,673.04</td>
<td>7.0%</td>
<td>-28.4%</td>
<td>-23.4%</td>
</tr>
<tr>
<td>12</td>
<td>Orthovisc® (high-molecular-weight hyaluronan)</td>
<td>Osteoarthritis</td>
<td>$1.23</td>
<td>$1,031.66</td>
<td>11.3%</td>
<td>10.3%</td>
<td>10.7%</td>
</tr>
<tr>
<td>13</td>
<td>Synvisc® (hylan G-F 20)</td>
<td>Osteoarthritis</td>
<td>$1.19</td>
<td>$1,132.42</td>
<td>10.7%</td>
<td>16.3%</td>
<td>28.8%</td>
</tr>
<tr>
<td>14</td>
<td>Euflexxa® (1% sodium hyaluronate)</td>
<td>Osteoarthritis</td>
<td>$1.19</td>
<td>$1,067.20</td>
<td>10.7%</td>
<td>10.8%</td>
<td>13.6%</td>
</tr>
<tr>
<td>15</td>
<td>Botox® (onabotulinumtoxinA)</td>
<td>Neuromuscular Conditions/Cosmetic</td>
<td>$1.08</td>
<td>$1,050.96</td>
<td>2.6%</td>
<td>10.8%</td>
<td>13.6%</td>
</tr>
</tbody>
</table>
In 2014 the FDA approved several specialty medications to treat pain, hepatitis C virus or NSAID-associated gastric ulcers. Although the products introduced to the market in 2014 constituted a very small portion of the 2014 workers’ compensation drug spend — only $11.68 of the $1,583.34 PUPY cost — their contribution was more than one and a half times the $2.66 that new products contributed to the PUPY cost in 2013.

The new drugs of note include the following:

- Sovaldi and Olysio, the top two new drugs by 2014 PUPY spend (Exhibit 14), are used to treat hepatitis C. Their cost averages upwards of $20,000 per 28-day prescription. Sovaldi alone accounted for more than 44.0% of the new-drug contribution to 2014 PUPY specialty spend.

- Zohydro ER® (hydrocodone extended-release) was launched in the U.S. in March 2014 following FDA approval in October 2013; it contains hydrocodone, a Schedule II controlled substance. Like all opioids, Zohydro ER exposes users to the risks of addiction, abuse and misuse. Extended-release products such as Zohydro ER contain relatively large amounts of opioids that are meant to be delivered gradually over longer periods than the smaller doses in shorter-acting products. Zohydro ER was of particular concern when launched because its easily opened capsules were not abuse resistant. If delivered all at once, the contents of only one or two doses could cause overdose or death. Partly in response to an appeal by more than two dozen state attorneys general, the manufacturer submitted an abuse-deterrent formulation, which the FDA approved in February 2015.

- Zorvolex® (diclofenac), an NSAID costing $196.53 per prescription, may also be used to treat pain.

- Orenitram™ (treprostinil) is the only FDA-approved oral form of a prostaglandin that reduces pressure in the lungs. It is taken twice a day to treat pulmonary arterial hypertension — potentially severe high blood pressure in the artery leading from the heart to the lungs, the veins from the lungs back to the heart, or the capillaries inside the lungs.
**EXHIBIT 14: TOP FIVE NEW MEDICATIONS IN WORKERS’ COMPENSATION**

<table>
<thead>
<tr>
<th>RANK</th>
<th>MEDICATION</th>
<th>THERAPY CLASS</th>
<th>PUPY SPEND</th>
<th>COST/RX</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sovaldi® (sofosbuvir)</td>
<td>Hepatitis C</td>
<td>$5.20</td>
<td>$24,277.85</td>
</tr>
<tr>
<td>2</td>
<td>Olysio® (simeprevir)</td>
<td>Hepatitis C</td>
<td>$1.81</td>
<td>$20,505.25</td>
</tr>
<tr>
<td>3</td>
<td>Zohydro® ER (hydrocodone extended-release)</td>
<td>Opioids</td>
<td>$0.76</td>
<td>$397.66</td>
</tr>
<tr>
<td>4</td>
<td>Zorvolex® (diclofenac)</td>
<td>NSAIDs</td>
<td>$0.52</td>
<td>$196.53</td>
</tr>
<tr>
<td>5</td>
<td>Orenitram™ (treprostinil)</td>
<td>Pulmonary Arterial Hypertension</td>
<td>$0.46</td>
<td>$15,721.04</td>
</tr>
</tbody>
</table>

**TREND ANALYSIS**

- Xartemis™ XR, another oxycodone/acetaminophen extended-release tablet, received FDA approval in March 2014. It is indicated for the treatment of acute pain that has not been relieved by prior therapy and is so severe as to require constant drug management. A Schedule II controlled drug, Xartemis XR contains ingredients that make crushing and dissolving it difficult. It cannot be labeled as abuse deterrent, though, until the FDA analyzes the results of ongoing studies. However, its unique ingredients prevent it from being interchanged with other oxycodone/acetaminophen products.

- Although not among the most-costly new drugs used in workers’ compensation, Fetzima® (levomilnacipran) was among the most-prescribed newer products in 2014. A selective serotonin-norepinephrine reuptake inhibitor (SNRI), it was approved by the FDA in July 2013 but not launched until December 2013. Although similar to the fibromyalgia drug, Savella® (milnacipran – Forest), Fetzima was approved exclusively to treat adults with major depressive disorder.
SOLUTIONS AND CITATIONS
The Express Scripts Lab embodies our belief that greater insights into human behavior lead to greater value for payers. The Express Scripts Lab™ – staffed with two dozen researchers and analysts who specialize in epidemiology, economics, statistics, data analysis and the social sciences – is one of the most advanced research and development facilities in healthcare. The Lab embodies our belief that greater insights into human behavior lead to greater value for payers. Using advanced technology, the Express Scripts Workers’ Compensation Research team, partnering with product innovators and clinicians, turns data into insights – and insights into proven solutions – for our clients.

Express Scripts is committed to developing evidence-based solutions to eliminate wasteful pharmacy spend and address key industry challenges. We take our commitment a step further, using in-depth research, advanced analytics and real-world testing to develop solutions that meet the challenges facing our clients.

At Express Scripts, some 4,000 pharmacists hold key positions throughout the company in Clinical Program Management, Formulary Management, Clinical Evaluation & Policy, Clinical Intelligence, Knowledge Solutions, Therapeutic Resource Centers, and Clinical, Research & New Solutions.

Our dedicated Workers’ Compensation–focused clinical pharmacy team advises our workers’ compensation clients on the application of clinical programs that promote appropriate, safe and cost-effective drug therapies. This team – drawing on proficiency from a wide range of backgrounds, including retail and hospital pharmacy, pharmacy benefit management, home delivery and compounding – collectively has more than 100 years of pharmacy experience, much of which has focused specifically on workers’ compensation.
OUR SOLUTIONS ENABLE BETTER DECISIONS

EXCLUSIVE CORE SERVICES:
These core services are 100% unique to Express Scripts. Other PBMs may lease or outsource these services.

- Express Scripts Pharmacy Network
- Express Scripts Home Delivery Pharmacy
- Express Scripts Contact Center/Customer Service
- Express Scripts Specialty Pharmacy – Accredo
- OASIS – Prior Authorization and Eligibility Tool
- Client Website/Reporting

*Solved through OASIS
† Supportive Solution
THE FUTURE OF PHARMACY TODAY

The Express Scripts Technology & Innovation Center is the convergence of our best-in-class pharmacy technology and state-of-the-art Lab, all under one roof and available for visits. Through our advanced capabilities, we provide solutions that save millions of dollars for clients and improve outcomes for patients.

CLIENTS AND PATIENTS REALIZE VALUE FROM LEADING PROPRIETARY TECHNOLOGY

Improved patient safety and service is a result of the automated Express Scripts Pharmacy, where medications are delivered faster, more accurately and more cost effectively.

- Dispensing accuracy rate greater than 99.99%
- Scanning system enables right drug for the right patient
- Multiple safety checks by systems and pharmacists
- 110,000 prescriptions dispensed, packed and shipped daily

CLIENTS AND PATIENTS REAP THE BENEFITS OF IMPROVED DECISION-MAKING

Actionable data, behavioral sciences and clinical specialization come together to develop smarter solutions and a better patient experience that drives out waste and improves outcomes.

- True test-and-learn environment
- In-flight pilots with clients and injured workers
- Cross-functional team of decision design experts
- Workshops, pilot programs and collaboration opportunities

The innovation team collaborates with researchers and clinicians to continually analyze data and refine solutions that help control costs and improve outcomes.
PROBLEMS COMPROMISING THE QUALITY AND AFFORDABILITY OF TREATMENT ARE TACKLED IN REAL TIME

Clients are invited to roll up their sleeves and join our experts on the front line of innovation. The Lab is a flexible and inventive space working toward one goal: better decisions for optimal outcomes.

- Diverse team of PhD and Masters-level scientists and researchers
- Predictive modeling and geospatial analytics to target pain points
- Benchmarking analysis clients can review
- Industry reports and peer-reviewed publications

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In calculating trend, prescription drug use was considered for clients with a stable injured worker base, defined as having a change in user volume of less than 50% from 2013 to 2014. Nonprescription medications and prescriptions that were dispensed in hospitals, long-term care facilities and other institutional settings were not included in our analysis. Utilization, determined on a PUPY basis, was calculated by dividing the total number of 30-day adjusted prescriptions by the total number of users in a year. Market share was determined by calculating the percentage of total 30-day adjusted prescriptions represented by one medication. Prescription drug costs were calculated by adding together ingredient cost, taxes, administrative fees and dispensing fees.

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SOLUTIONS AND CITATIONS


