



Prescription Drug Monitoring Program Training and Technical Assistance Center

Notes from the Field

Enabling and Requiring Pharmacist Use of PDMP Data: Kroger's Access in Workflow Solution

December 2016

Brandeis University The Heller School
For Social Policy and Management



This project was supported by Grant No. 2014-PM-BX-K001 awarded by the Bureau of Justice Assistance. The Bureau of Justice Assistance is a component of the Office of Justice Programs, which also includes the Bureau of Justice Statistics, the National Institute of Justice, the Office of Juvenile Justice and Delinquency Prevention, and the Office for Victims of Crime. Points of view or opinions in this document are those of the author and do not represent the official position or policies of the U.S. Department of Justice.

Enabling and Requiring Pharmacist Use of PDMP Data: Kroger's Access in Workflow Solution

Background

PDMPs can be effective tools for addressing the prescription drug abuse epidemic if they are well utilized.¹ Recent efforts to increase utilization have focused primarily on prescribers, in particular the adoption of legislation by many states to mandate that prescribers query their state's PDMP under certain circumstances, e.g., for a first opioid prescription and at regular intervals thereafter.² Less attention thus far has been paid to increasing use of PDMPs by pharmacists, even though they bear final responsibility for releasing controlled substances to patients. As of 2016, just ten states had some requirement that pharmacists query the PDMP (a dispenser mandate), compared to 31 states that had requirements on prescribers.³ Dispenser mandates range from discretionary advisories to query the database should the customer be from outside the area or unfamiliar to the pharmacist (North Dakota), to categorical requirements, e.g., to view a patient's prescription history to help ensure she will not be in possession of more than a 30 day's supply of opioids (New York). Pharmacies in states with dispenser mandates of necessity must provide their employees with PDMP access, thus face the significant technical problem of integrating such access into an efficient pharmacy workflow. The cost of developing IT solutions and the addition of yet another task for pharmacists may be disincentives for pharmacies to institute such systems voluntarily.

Nevertheless, whether in response to state mandates or on their own initiative, some pharmacy chains have adopted internal policies requiring that their dispensers query the PDMP under certain circumstances, and have developed IT systems to support such access. Starting in 2013, the Walmart and RiteAid companies instituted such policies in Oregon, which reportedly contributed significantly to increased use of that state's PDMP.⁴ In Massachusetts, CVS requires pharmacist queries to the PDMP when dispensing opioids. The Kroger Company (henceforth Kroger) has recently promulgated requirements that its pharmacists view PDMP data under certain conditions, and has developed an integrated workflow system supporting such use. This report will describe the system and Kroger's rationale for adopting it as a case study in the feasibility and efficacy of requiring pharmacist use of PDMP data.⁵

¹ Briefing on PDMP Effectiveness, http://www.pdmpassist.org/pdf/COE_documents/Add_to_TTAC/Briefing%20on%20PDMP%20Effectiveness%203rd%20revision.pdf

² Briefing on Prescriber Use Mandates, http://www.pdmpassist.org/pdf/COE_documents/Add_to_TTAC/COE%20briefing%20on%20mandates%203rd%20revision.pdf

³ TTAC map on mandatory queries by prescribers and dispensers at http://www.pdmpassist.org/pdf/Mandatory_Query.pdf

⁴ Deyo, R. et al., Leading a Horse to Water: Facilitating Registration and Use of a Prescription Drug Monitoring Program, *Clin J Pain*. 2014 Nov 7, <https://www.ncbi.nlm.nih.gov/pubmed/25380223>; Richard Deyo pers. comm., 10 15 16.

⁵ Although the Kroger system appears thus far to be operating as intended, nothing in this report should be construed as an endorsement of the particular approach Kroger took to PDMP workflow integration, including its use of the NARxCHECK™ tool.

System Inception and Overview

In 2014, the Ohio PDMP (Ohio Automated Rx Reporting System, or OARRS) received a grant from the Substance Abuse and Mental Health Services Agency (SAMHSA) for a pilot program to develop, in partnership with a business, efficient pharmacist access to its database. OARRS proposed to Kroger that they collaborate with the National Association of Boards of Pharmacy's (NABP) InterConnect system, to design and implement such a system; Kroger agreed, contributing its own IT expertise, staff and resources. The system design and pilot implementation took four months, utilizing private funds provided by Kroger that were partially offset by the sharing of grant funds from both Ohio and West Virginia. The full-fledged, fully operational system went live in Ohio in July of 2015.

The system uses the NARxCHECK™ prescription data analytical tool, which is integrated into Kroger dispensing software. When activated, the data analytics tool displays to the pharmacist the patient's PDMP data in both numerical and graphical formats. Besides OARRS prescription data, the system retrieves data from other state PDMPs made interoperable with Ohio. The data are available to the pharmacist in a matter of seconds, and include summary patient risk scores for each of the three major drug categories (narcotics, sedatives, and stimulants) as well as a detailed, two year prescription history. The software can be configured such that the pharmacist must view the PDMP report before dispensing a controlled substance, depending on the drug and/or the patient's prescription information. According to the Kroger representative interviewed for this case study, the system supplies pharmacists with potentially critical patient information while adding only slightly to the time necessary to make responsible dispensing decisions. Kroger plans to implement this system in all of its U.S. pharmacies to the extent allowed by state regulations.⁶

Kroger's Rationale for Enabling and Requiring PDMP Access

As described by the Kroger representative, the company's decision to collaborate on this initiative was motivated by three factors: patient safety, legal and regulatory constraints, and financial considerations. Patient safety is enhanced when a pharmacist dispenses controlled substances with complete information on what other medications are, or might be, in the possession of the patient. Thus, enabling pharmacist access to and review of PDMP data, especially when dispensing medications subject to abuse and diversion, is in the patient's - and the public's - best interest.

This approach also sought to anticipate states' laws and regulations on dispensing, in particular, requirements for pharmacist access to PDMP data. By developing the capability for such access, and by promulgating a policy requiring consultation of PDMP data by its pharmacists under certain conditions, Kroger was in effect pre-qualifying itself to comply with any state-imposed dispenser mandate, instead of responding piecemeal to each state's particular requirements.

Lastly, being pro-active in supporting well-informed dispensing decisions reduces overall risk to the company, such that any slight increase in the cost of dispensing is vastly outweighed by delivering healthcare in the most safe and effective manner possible. In sum, these three factors – ensuring patient safety, anticipating regulatory requirements, and limiting liability – were all aligned in favor of this initiative.

⁶ A presentation on the system delivered at the 2016 National Rx Drug Abuse and Heroin Summit is available at <http://www.slideshare.net/OPUNITE/rx16-pharma-wed11151ryle2menkhaus3mcginley>, slides 29-53.

System Operations and Functionality

The Kroger system automatically requests and receives a PDMP report for all controlled substance prescriptions submitted for the patient, using data from all enabled neighboring states linked to the host state's PDMP. The reports are available using the analytical tool, accessible via the "PDMP" button in the pharmacist's dispensing software, so no separate PDMP login is necessary. Should the patient's prescription data meet or exceed specific risk thresholds, the system is configured to alert the pharmacist that the report must be reviewed prior to dispensing (a "forced review"); alerts are indicated by the PDMP button appearing in red (pharmacists can access a PDMP report whether or not review is required). The credentials of the reviewing pharmacists are captured and stored such that the identity of the reviewing pharmacist is available for PDMP tracking and the confidentiality of the prescription data is maintained.

The forced review settings can be adjusted at the store or state level; currently in all (16) enabled states they are configured by Kroger central administrative staff and are therefore uniform across all stores. Should a review be required, prompts appear that notify the pharmacist that PDMP data must be consulted; attempts to bypass a forced review automatically block the promotion of the prescription to the next workflow step. When accessing a PDMP report, the user sees summary risk scores for the three major drug classes, but can also access more detailed information about the patient's prescribers, dates and locations of prescriptions filled, and the medications dispensed. Graphical and tabular displays of prescription data facilitate detection of "red flags," such as overlapping prescriptions, multiple prescribers and/or pharmacies, and potentially dangerous drug combinations. Guidance on how to use the system and interpret PDMP data, such as detecting red flags, is available from links within the application; it includes FAQs, training materials, and a detailed manual ("playbook") on the PDMP and analytical tool. Beyond decision-making in dispensing, Kroger also provides baseline guidance to clinicians for follow up, should that be necessary.

System Expansion and Outcomes

Since its inception in Ohio, this system is now live in 16 states and over 1100 stores – more than 50% of all Kroger pharmacies.⁷ More states are targeted for implementation, including Kentucky and Michigan, which will add over 200 additional stores. Kroger reports that pharmacist reviews of PDMP data have increased over 500 percent, from around 10 percent of all controlled substance prescriptions to over half.

The increase in reviews has been accompanied by a reduction in controlled substance dispensing. Although all stores reported similar growth rates for all dispensed prescriptions, for stores in which the system was enabled, the proportion of all prescriptions dispensed that were for controlled substances was 1.2% less than for stores not using the system. As of August 2016, stores using the system showed collectively negative growth in controlled substance dispensing compared to 2015 (down 1.12%), compared to positive growth in stores not using it (up 1.25%). The system has overall been well-received by pharmacists, and enhancements continue to be made in response to feedback from the field. According to Kroger, it has met or surpassed PDMP and Kroger expectations for utility, secure access, and data confidentiality.

⁷ States include AK, AR, AZ, CO, ID, IN, KS, LA, MS, NM, NV, OH, SC, TX, VA, WV. Excludes acquisitions not yet on the Kroger Pharmacy System.

Barriers

Although its PDMP workflow integration solution appears successful, this project encountered some technical, legal and capacity barriers to system implementation and operation. Designing and building the system required significant IT work, thus impacting other potential projects. Some states' laws on health data privacy require direct access to the PDMP itself, thus foreclosing the option of retrieving patient data via a pharmacy dispensing system. The statutorily limited ability of some states to share data across state lines proved to be a significant obstacle. The process of obtaining memoranda of understanding (MOUs) from states was time consuming, as was the negotiation of contracts with intermediaries. Once up and running, capacity problems have surfaced in some states due to the volume of out-of-state data requests, and in handling data errors in multi-state responses; these have largely been resolved. Despite these initial barriers, Kroger has steadily increased the number of states and stores using the system, making modifications as necessary to help facilitate future installations and enhance functionality.

Conclusion

Process and outcome data indicate that the Kroger's PDMP workflow integrated system is operating as envisioned: providing pharmacists with immediate desktop access to PDMP data using the analysis and decision support tool. The system can also force a review of PDMP data by pharmacists prior to dispensing controlled substances as determined by algorithms that detect a potentially problematic prescription history. Kroger emphasizes in its guidance to employees that PDMP data as presented by NARXCHECK™ are simply an aid to the pharmacist in judging whether or not to dispense controlled substances to patients, not a decision-making program that could substitute for clinical expertise and knowledge of a patient's medical condition.

It is noteworthy that this system could, if necessary, be programmed to force a PDMP review prior to dispensing any and all controlled substance prescriptions. It therefore has the capability to help ensure pharmacy compliance with even the most stringent dispenser mandate, were a state to adopt such a policy. But as its utilization in Ohio and other states demonstrates, the system can be configured to require reviews only in cases where the software analytics determine a review is needed, based on the patient's prescription history and drug being dispensed. This saves pharmacist time that would otherwise be spent on what would likely be unnecessary reviews (the downside of a blanket mandate). Should a concern about a prescription arise for any reason, the pharmacist always has the option of consulting the patient's PDMP data, even if not prompted to do so by the software.⁸

A survey of pharmacy company policies and approaches to PDMP data use in the workflow was well beyond the scope of this report. However, it is likely that, given the growing appreciation of the clinical value of PDMP data, as well as dispenser mandates in some states, most major pharmacy chains besides Kroger (e.g., Walgreens, CVS, Walmart, Rite Aid) will eventually seek to integrate PDMP data queries into their pharmacy dispensing software systems, or have already done so. Consequently, they will be exploring or have adopted IT

⁸ The decision about what risk threshold criteria in a patient's prescription history should force a review, e.g., being prescribed opioids by multiple practitioners, or being prescribed opioids and benzodiazepines concurrently, will reflect medical consensus on the risks involved in meeting a threshold. Concern for patient safety suggests setting thresholds that err somewhat on the side of triggering unnecessary reviews. The NARXCHECK™ risk detection algorithms and Kroger's system configuration settings for required review are proprietary information, thus not available for this report.

Enabling and Requiring Pharmacist Use of PDMP Data

solutions for efficient access. They may also adopt policies requiring that their pharmacists view PDMP data in certain circumstances and in certain states, as for example CVS has done in Massachusetts and Walmart and RiteAid in Oregon (see Background above). Kroger's policies and software solution as described here are therefore just one possible approach to the challenge of providing efficient access to and useful summaries and displays of PDMP data. Nevertheless, they demonstrate the feasibility of seamless integration of PDMP access into the workflow and the value added by a decision-support tool. Kroger's requirement that its pharmacists review PDMP data under certain conditions also illustrates how pharmacy chain policies can align with and anticipate state dispenser mandates intended to increase patient safety and reduce the diversion of prescription medications. As companies continue to explore and refine their workflow integration solutions, PDMP data will become increasingly accessible and valuable to pharmacists in their clinical decision-making, helping to motivate compliance with mandates. The resulting increase in PDMP utilization by pharmacists will contribute to gains in the proper use and availability of controlled substances.

Acknowledgement: TTAC gratefully acknowledges the generous cooperation and assistance of Michael Menkhaus, Kroger pharmacy systems project manager, in the preparation of this report.
