

Drug Utilization Alerts: Failures and Future Direction



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MANY OPINIONS HAVE BEEN VOICED

concerning the December 2016 *Chicago Tribune* exposé concerning pharmacists' failure to counsel patients on potentially life-threatening drug interactions and prevent the filling of these prescriptions. Of the 255 pharmacies tested, 52% dispensed medication pairs without mentioning the interaction risks. The best pharmacy chain missed the interaction 30% of the time, while independent pharmacies had the highest failure rate of 72%.

Industry responses were not reassuring. They ranged from "no comment" to nonexplanations such as, "Our pharmacists have a history of providing knowledgeable, exemplary care to our customers, and their health, well-being, and safety is our primary concern." No responses provided insight as to reasons why pharmacists missed the interactions, and more importantly, the industry did not note systematic ways to improve the DUR (drug utilization review) process.

I will explore the historical issues with DUR system configurations and suggest steps the industry needs to take to improve patient safety. These steps are vital to ensuring these results improve in the future. The industry must take the lead in solving these issues. Otherwise, the government will implement legislation in an attempt to improve patient safety. Illinois House Bill 2392 was introduced to amend the Pharmacy Practice Act requirements.

At this time, HB 2392 has been re-referred to the Rules Committee, but it illustrates the types of oversight that may be imposed

Pharmacy Practice Act Requirements

- Pharmacists fill no more than 10 Rx's per hour.
- Ten pharmacy technician hours per 100 Rx's filled.
- Mandatory pharmacist breaks — no working during breaks, and the pharmacy must keep a complete and accurate record of breaks taken.
- Pharmacists cannot work more than eight hours per day.
- Pharmacies must maintain a record of any errors in the receiving, filling, or dispensing of prescriptions.
- Whistleblower protection is provided for pharmacy employees if the pharmacy retaliates against the employee for certain actions.

if progress is not made on improving the effectiveness of DUR alerts in practice.

HISTORICAL REVIEW

DUR alerts were first programmed into pharmacy systems over 25 years ago, following the computerization of pharmacy. OBRA-90 required prospective DUR to determine if the prescription was necessary and appropriate. In response to this need, drug compendia developed clinical rule sets that enabled pharmacy systems to comply with these requirements. Clinical teams in the drug compendia used the FDA-approved package insert, peer-reviewed clinical studies used to support approval, and theoretical drug class interactions to determine which DUR alerts to implement.

CONFIGURATION QUESTIONS

OBRA-90 implementation required that pharmacy management systems be configured to determine which DUR alerts should be displayed, once the new clinical information was programmed. Considerations included the appropriateness of the

DUR alert, the expected pharmacist action, workflow and productivity issues, and most importantly, the impact on patient safety. Additional challenges included: What number of alerts should be displayed? What severity level of alerts should be displayed? Do we require a hard halt? If yes, what will be the impact on workflow? When do we require an intervention and outcome code? How do we track pharmacist responses to DUR alerts?

This was uncharted territory, as answers to these issues were not available because it was a new process. Focus groups were conducted to get feedback from pharmacists, and prescriptions were run through DUR alerts to estimate the number of alerts generated. Fast-forward to today, and these issues are still relevant, just more complex.

STEPS ALONG THE WAY

Prescriber electronic health record (EHR) systems have similar configuration issues that pharmacies dealt with in the 1980s. New questions included:

- ❑ Do we have different DUR displays

based on the specialty of the prescriber?

- ❑ Can the prescriber set system overrides to ignore specific DUR alerts based upon their patient base (e.g., warfarin alerts for cardiologists)?

Pharmacists evaluate the drug prescribed versus other prescriptions dispensed in their pharmacy. When the transaction is submitted to the payer for adjudication, the payer has its own set of DUR alerts in its claims processing system and determines what alerts, if any, to return in the response. If all of the patient's prescriptions are from the same pharmacy, do we send back the DUR alert? In what cases do we require an intervention and outcome code before approving a prescription?

LEGAL CONSIDERATIONS

Lurking about an inch below the surface on DUR discussions are the legal concerns that each supply chain participant has to minimize. The stakeholders' legal perspectives and risk assessment include:

Pharmaceutical manufacturers. We need to provide a comprehensive picture of the potential clinical issues in the labeling of our products; otherwise, we face class action law suits from plaintiff's attorneys.

Drug compendia providers. We supply DUR alerts based on our clinical judgment. It's up to our customers to decide how to use this information.

Electronic health record systems. We present clinical decision-support information to healthcare practitioners. It's up to their professional judgment on how to respond to them.

Payers and claims-processing systems. We provide information to the pharmacist based upon our clinician's recommendations and patient's prescription history. It's

up to the professional judgment of the pharmacist on the action to take.

Pharmacy chains. We establish DUR configurations at the corporate level and recommend best practices. However, it's up to the professional judgment of the pharmacist on what action to take.

Pharmacists. It's my license on the line based upon the action or inaction taken in response to the DUR alert. Pharmacists have realized this legal exposure and most have secured their own professional liability insurance to protect themselves.

Corporate Attorneys. How do we minimize our organization's legal risks?

ALERT FATIGUE

The legal risk leads to decision-making that lends itself to sending more messages than may be warranted. This leads to alert fatigue, which I define as the number of alerts sent to the prescriber or pharmacist that reaches the tipping point, where significant information alerts are ignored.

What is the threshold for alert fatigue?

It likely depends upon the prescription volume, number of distractions in the pharmacy, and relevance of the alerts.

MANAGEMENT QUESTIONS

There are many issues that need to be researched and evaluated by all supply chain participants to determine the following:

- ❑ How do you know if DUR alerts are working correctly?
- ❑ What reports are available to determine the action to take based upon specific DUR alerts?
- ❑ What alerts, if any, require an intervention and outcome code that may impact workflow?

PATHWAYS FORWARD

You can't manage what you don't measure. Pharmacy chains and pharmacy management system (PMS) vendors must measure the impact of the DUR alerts to determine their effectiveness. For example, in a PMS workflow system, the time spent by the pharmacist reviewing a DUR alert before moving the prescription into the next queue can be measured. A second or two of time to review the DUR alert would indicate it was dismissed as meaningless.

Metrics must be created and reported to evaluate the effectiveness of the alert, including feedback from pharmacists. A review process with both internal employees and external experts should be created to evaluate the data and make changes to the system configuration.

Pharmacy has created excellent metrics to measure staff productivity. However, there have been few measurements for pharmacist quality. What is the relationship between quality and productivity? With declining reimbursement rates, pharmacy has been forced to fill additional prescriptions to generate the same dollar profits. At what volume is quality sacrificed for quantity?

I recommend engaging your pharmacists and system vendor to discuss the ability to generate metrics to evaluate the effectiveness of DUR alerts. The industry must take the lead to improve patient safety. If we ignore this opportunity, legislation will force changes that may be well-intentioned, but cause more harm than good. **CT**

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