Wolters Kluwer

White Paper

Health

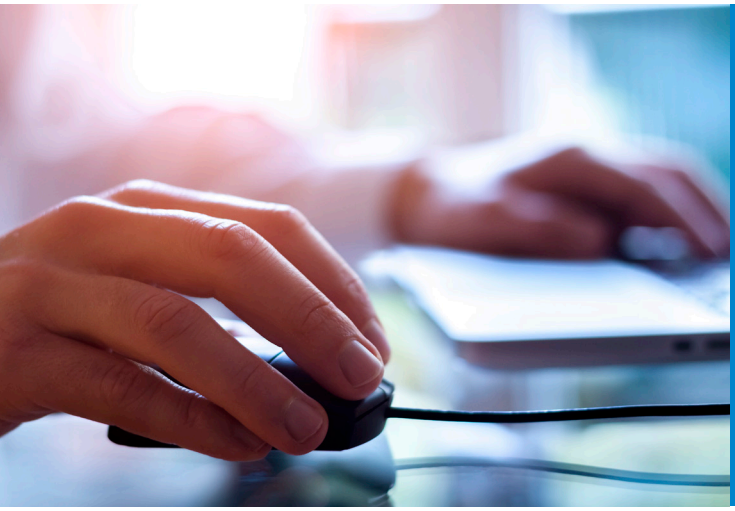
Polypharmacy: Managing Multiple Medications to Help Reduce Costs and Improve Patient Safety

While no standard definition for polypharmacy exists, the term is generally used to describe an individual's use of many medications – typically five or more.

Since many elderly patients take several medications to treat multiple chronic conditions, the issue is most commonly associated with seniors. The number of people age 60 and older is expected to more than double by 2050, rising from 962 million globally in 2017 to 2.1 billion in 2050.[1] With an aging population and ever-changing array of new medications to treat their ailments, polypharmacy is on the rise. Between 2006 and 2011, the percentage of people age 65 and older taking five or more medications or supplements increased from 53.4 percent to 67.1 percent.[2]

Why are seniors taking so many medications? Elderly patients often see multiple clinicians, including a primary care provider, hospitalists, and specialists. These various clinicians all may be prescribing medications. Over time, the patient and primary care provider may not know precisely why a medication was initially prescribed. However, assuming that a patient is doing well on the roster of medications, clinicians may be reluctant to tinker with a working lineup. In addition, if patients are using multiple pharmacies, another level of complexity comes into play.

Among the greatest risks posed by polypharmacy is the potential interaction between what many in the industry have come to call the "Holy Trinity." While various professionals use the expression to refer to different things, in terms of drug interactions, it is generally used to refer to the combination of opioids and two other drugs capable of producing a central nervous system (CNS) reaction. While most healthcare providers and screening systems are aware and equipped to check for interactions between two drugs, three-way interaction screening has become a critical factor in helping spot and reduce the potential harms the Trinity can cause.



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Consequences for Patients

Polypharmacy presents a variety of concerns for patient safety:

Adverse drug events (ADEs)

- Outpatients – regardless of age – taking five or more medications had an 88 percent increased risk of suffering from an ADE compared to those who were taking fewer medications[3]
- When someone does experience an ADE, it can be difficult to pinpoint which drug is the culprit
- Hospitalized adults taking five to nine medications have a 50 percent probability of experiencing a drug-drug interaction[3]

Medication nonadherence

- Simply managing prescription renewals and following a complicated schedule throughout the day can be challenging, especially for seniors
- Failing to adhere to a medication regimen can result in disease mismanagement and hospitalization

Cognitive impairment

- Risk increases with polypharmacy
- Studies show that the number of medications a patient takes is also associated with increased mortality risks[4]

Medication Costs

In 2016, U.S. spending on prescription drugs exceeded $300 billion. One report indicates that polypharmacy accounts for 28 percent of all hospital admissions, driving other potentially unnecessary costs.[5]

Significance for Payers

Many players in our healthcare system are pursuing a more active role in addressing polypharmacy. Some primary care physicians are reviewing prescription regimens with their patients at the start of each visit. Others are exploring the option of safely deprescribing certain classes of widely used drugs. Since nearly 50 percent of older adults are taking one or more medications that are not medically necessary, these efforts are warranted.[3] The Bruyère Research Institute has released deprescribing guidelines to support healthcare providers in safely reducing or stopping medications that may no longer be necessary.[6]

Payers are in a unique position to find a solution to this issue. While multiple prescribers and pharmacies may be involved with a patient's prescriptions, payers usually have access to a consolidated view of most of a patient's medications, assuming that most prescriptions are being processed through an insurer. While this does not include any over-the-counter medications and supplements a patient may be taking, it provides a central point for reviewing a patient's inventory of prescriptions. This means that payers have the data to help reduce adverse drug events, drug-drug interactions, and ultimately, hospitalizations. Better management of patient prescriptions holds tremendous potential for improving outcomes and tempering costs for patients and the healthcare system.

How Payers Can Address the Complexities of Polypharmacy

Payers are addressing concerns about polypharmacy by incorporating screening procedures into their policies. These efforts must adhere to ever-changing legislation and guidelines and are aided by a combination of manual processes and technology.

Complying with Regulatory Guidelines and Legislation

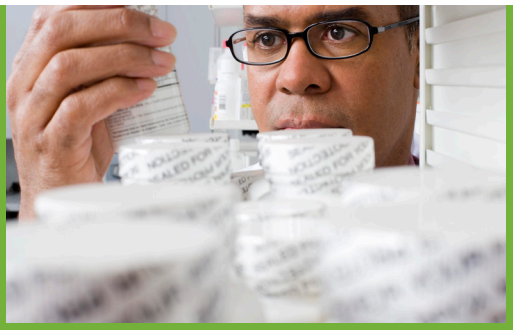
Initiatives at both the federal and state level are key drivers of the policies payers are adopting.

For example, triggered by alarm over the opioid epidemic, the Centers for Disease Control and Prevention (CDC) released prescribing guidelines for primary care clinicians in 2016.[7] These guidelines address when to initiate or continue opioids for chronic pain outside of active cancer treatment, palliative care, and end-of-life care. The guidelines recommend clinicians prescribe the lowest effective dose possible of immediate-release opioids for short-term treatment of acute pain (three to seven days). Payers are implementing policies to align with these guidelines, helping to ensure that physicians and pharmacies comply with them.

In October 2018, Congress enacted House Resolution (H.R.) 6, the Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment (SUPPORT) for Patients and Communities Act.[8,9] The legislation includes nearly 200 provisions for opioid disorder prevention, recovery, and treatment. For example, state Medicaid programs are now required to have safety edits in place for opioid refills and to monitor prescribing of opioids in conjunction with certain other drugs. In addition, the FDA will be able to require manufacturers to package oral opioids for certain patients in unit-dose or blister packaging with a three- or seven-day supply. This can help to prevent opioid diversion and reduces disputes about amounts dispensed by a pharmacy. The new legislation also requires electronic prescribing for controlled substances (EPCS) for Medicare Part D by 2021. Since electronic prescribing eliminates the need for paper prescriptions, it removes one potential source of fraud or theft.

To add to the complexity for payers, they must track legislation state-by-state as well. Nearly every state has implemented prescription drug monitoring programs (PDMPs), which are electronic databases that collect and analyze controlled substance prescriptions in a state. (Missouri lacks a traditional PDMP, but legislation is pending and may pass in 2019.)[10]

Some states require providers to check PDMPs prior to prescribing certain controlled substances and in certain circumstances. In addition, these programs can be used by licensing boards to identify clinicians with track records of inappropriate prescribing of controlled substances. PDMPs can also help pinpoint individuals who have been prescribed dangerous combinations of drugs, such as opioids and benzodiazepines. The data can also detect people who are receiving multiple prescriptions of commonly misused drugs from multiple prescribers and/or pharmacies, which may indicate addiction.



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One of the challenges with which prescribers struggle is the lack of data integration within their workflow. The prescriber must typically leave a patient's EHR, log into the state website to access the database, search for the patient's name, and then return to the EHR to execute a prescription, if the search does not reveal red flags. In addition, the lack of a national patient identifier means that there is no tracking or continuity state-to-state. A patient may be working with a clinician in a different state, who has no access to the patient's record in his or her own state.[11]

Technology Supports Compliance and Screening

In addition to incorporating policies that reflect the nuances of governmental policies, payers (working in coordination with healthcare providers) must conduct clinical screening to support safe decision making. Decision support tools can review patient diagnoses and their medications, alerting healthcare professionals to potential conflicts, thereby enhancing patient safety.

For example, technology can help to identify possible adverse drug events, enabling professionals to identify medications that may be causing one or more of a patient's medical conditions. Automating this process helps to ensure consistency and increases productivity by eliminating the need to manually retrieve potential ADE information. Quickly identifying potential adverse drug reactions can help patients avoid hospitalizations, physician visits, and lab tests, saving patients and institutional costs.

Additional technologies provide drug interaction and drug allergy content information to enable screening during order entry by prescribers and pharmacists. This data enhances patient safety by assisting in clinical decision making by addressing clinical issues and relevant medical studies regarding potential patient risk. Assuming that the patient profile accurately reflects allergies, screening tools can also help prevent allergic reactions. By "grading" the severity of potential drug interactions, professionals can accurately assess the risks involved.

While screening for two-way drug interactions is valuable, three-way screening also is critical, particularly in the case of the "Holy Trinity" prescription mix. The combination of oxycodone, hydrocodone, and benzodiazepines can lead to difficulty breathing, sedation, and even death, especially with misuse/overdose situations. Additionally, the frequently noted "Holy Trinity" combination of carisoprodol (Soma), alprazolam (Xanax), and opioids provides a strong indicator of illicit drug use.[12]

Next Steps

According to a recent patient study, 17 percent of hospital admissions for those 65 and older are for adverse effects of medicines. The study estimates that more than 70 percent of hospital admissions for adverse effects could be avoided.[13]

Due to the severity of the opioid crisis, a plethora of programs are focusing on appropriate prescribing and improved controls over opioid availability and use. Polypharmacy is so prevalent, particularly in the elderly, that it deserves the same level of attention.

Better medication management holds the potential to improve patients' health, while significantly reducing costs to individuals and the entire healthcare system.

Sources:

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