

Can Prescription Drug Monitoring Programs Help Limit Opioid Abuse?

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P RIMARY CARE PHYSICIANS, EMERGENCY PHYSICIANS, ONCOLOGISTS, orthopedic surgeons, and other physicians are at the frontline of providing pain therapy for patients with acute illness and rescue treatments for patients with exacerbations of chronic pain. Increasingly, this role is compromised by concerns about the prevalence of opioid abuse and diversion of prescribed medications from the intended patient to others who abuse opioids. Individual use of prescription opioids increased 402% from 1997 to 2007.¹ This increase in opioid prescribing parallels substantial increases in opioid addiction, fatal overdoses, and diversion of these drugs for recreational or non-medical use.² In 2007, opioid overdose was the second leading cause of unintentional deaths in the United States after motor vehicle collisions. Fatalities associated with prescription drug use are more numerous than deaths from cocaine and heroin combined.³

Prescription Drug Monitoring Programs

Recent publications acknowledge the complex role of health care professionals in the opioid abuse epidemic. In 2009, Volkow et al⁴ reported that primary care physicians and emergency physicians were among the top 5 outpatient specialties prescribing opioids for patients younger than 39 years.

A federal response to the problem was outlined in a White House Office of National Drug Control Policy document in April 2011, focusing on 4 issues: patient and clinician education, increased prescription drug tracking and monitoring, proper medication disposal, and reductions in illegitimate prescription abuse.⁵

Specifically, this report recommended enhanced use of prescription drug monitoring programs. These statewide electronic databases collect and distribute data on controlled substance prescribing. The National Alliance for Model State Drug Laws indicates that these databases exist to support legitimate medical use of controlled substances while limiting drug abuse and diversion. Data from drug monitoring programs could potentially measure the success of public health initiatives and interventions for drug abuse.

Direct effects of prescription drug monitoring programs on reducing mortality may be uncertain; however, several

studies demonstrate other benefits associated with prescriber-accessible monitoring programs. In a 2010 prospective study of 179 clinical records reviewed in Ohio's database, real-time access to patient-specific records changed practitioners' opioid prescription practices in 41% of interactions. Accessing the drug monitoring program database resulted in decreased or no opioid prescriptions following 61% of the queries yet an increase in the remaining 39%.⁶ These results indicate that the targeted use of drug monitoring programs by prescribers does not result in indiscriminately decreased administration of pain medications.

The same study also illustrates drug diversion and physician shopping. Individual patients filled from 0 to 128 opioid prescriptions in a 12-month period, with prescriptions in some cases obtained from up to 40 different clinicians. Real-time access to this information—rarely volunteered by patients—could facilitate a more deliberate, patient-specific approach to opioid misuse.

Patients who obtain prescriptions through multiple prescribers are not just a source of frustration for prescribers; this behavior also may be associated with impending overdose⁷ and an increased volume of opioids circulating in communities.

Federal and State Support

Although prescription drug monitoring programs are designed and maintained at the discretion of each state, federal funds from the Bureau of Justice have assisted in facilitating interstate data exchange and in creating and expanding data collection and analysis systems. However, function and success of drug monitoring programs continue to be limited by variability in data collection systems and the interstate exchange of information. New interstate collaboration initiatives through the National Association of Boards of Pharmacy and the Alliance of States with Prescription Monitoring Programs attempt to address these issues.

State-Level Drug Regulation

Data from the National Alliance for Model State Drug Laws show that as of March 2011, 44 states have authorized the

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establishment and operation of a drug monitoring program, although only 34 states have operational databases and administrative characteristics impede the function of some.⁸ Prescriptions tracked range from the US Drug Enforcement Administration Schedule II medications exclusively to more comprehensive programs that include Schedules II through V. Some states allow access to drug monitoring programs for both prescribers and special law enforcement investigations, whereas other states restrict access to law enforcement exclusively. Some states facilitate continuous prescription logging by pharmacies, whereas others request that pharmacies submit monthly updates of prescriptions filled, resulting in lagging database accuracy.

Drug Monitoring Programs and Opioid-Related Mortality

Whether prescription drug monitoring programs are associated with reduced opioid-related mortality is uncertain. Statistical modeling performed in 2006 by the Department of Justice found that drug monitoring programs are associated with reductions in the volume of Schedule II opioids in communities and suggested that this result should “reduce the probability of opioid abuse.”⁹ In contrast, a 2011 analysis of US opioid analgesic–induced deaths including opioids from all Drug Enforcement Administration schedules found no statistical difference in opioid overdose mortality between states with and without prescription drug monitoring programs, concluding that these programs require significant modification to have an effect on mortality.¹⁰

However, neither of these studies acknowledged significant differences among programs. Different programs operate under state health departments, law enforcement agencies, and professional licensing and consumer protection organizations; each type of governing body has different objectives, achieved through different administrative structures. Two states (Nevada and Delaware) mandate prescriber access to the state program to show that a prescription is appropriate, while other states (such as Pennsylvania) only allow law enforcement to access statewide databases, limiting utility for practitioners.⁹

Conclusion

Increasing opioid dependence and diversion add to the challenge of providing appropriate treatment for acute and chronic pain. Patient satisfaction is often related to treatment of pain, which is difficult to assess objectively; thus,

opioids are prescribed using a combination of patient assessment, self-reported history, and clinical gestalt.

Access to a patient’s prescription history informs a physician’s decision to prescribe these effective but potentially dangerous medications. Current evidence suggests that sedulously designed and implemented prescription drug monitoring programs can play a critical role in helping to reduce opioid abuse, diversion, and overdose. Clinician access to such programs could facilitate informed prescribing, thus potentially decreasing diversion, opioid abuse, and the amount of medication prescribed while still providing patients with appropriate analgesia.

Further research may delineate the ideal prescription drug monitoring program format to address opioid morbidity and mortality. Uniformity and clinician access to these databases could provide a measure of safety to patients and communities and potentially benefit public health. Physician, patient, and policy maker advocacy is needed at the state and national level to enhance and expand these monitoring programs.

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