How does use of a prescription monitoring program change pharmacy practice?

Traci C. Green, Marita R. Mann, Sarah E. Bowman, Nickolas Zaller, Xaviel Soto, John Gadea Jr., Catherine Cordy, Patrick Kelly, and Peter D. Friedmann

Abstract

Objectives: To assess differences in prescription monitoring program (PMP) use between two states with different PMP accessibility (Connecticut [CT] and Rhode Island [RI]), to explore use of PMPs in pharmacy practice, and to examine associations between PMP use and pharmacists' responses to suspected diversion or "doctor shopping."

Design: Descriptive nonexperimental study.

Setting: CT and RI from March through August 2011.

Participants: Licensed pharmacists in CT and RI.

Intervention: Anonymous surveys e-mailed to pharmacists

Main outcome measures: PMP use, use of patient reports in pharmacy practice, and responses to suspected doctor shopping or diversion.

Results: Responses from 294 pharmacists were received (CT: 198; RI: 96). PMP users were more likely to use the PMP to detect drug abuse (CT: 79%; RI: 21.9%; $P < 0.01$) and doctor shopping (67%; 7%; $P < 0.01$). When faced with suspicious medication use behavior, PMP users were less likely than nonusers to discuss their concerns with the patient (adjusted odds ratio 0.48 [95% CI 0.25–0.92]) but as likely to contact the provider (0.86 [0.21–3.47]), refer the patient back to the prescriber (1.50 [0.79–2.86]), and refuse to fill the prescription (0.63 [0.30–1.30]). PMP users were less likely to state they were out of stock of the drug (0.27 [0.12–0.60]) compared with nonusers. Pharmacists reported high interest in attending continuing education on safe dispensing (72.8%).

Conclusion: Pharmacists are important participants in the effort to address prescription drug misuse and abuse. Current PMP use with prevailing systems had limited influence on pharmacy practice. Findings point to future research and needed practice and education innovations to improve patient safety and safer opioid dispensing for pharmacists.

Keywords: Prescription monitoring programs, prescription opioids, substance abuse, nonmedical use, pharmacy practice.

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Traci C. Green, PhD, MSc, is Assistant Professor of Emergency Medicine and Epidemiology, Warren Alpert Medical School, Brown University, Providence, RI, and Research Scientist, Department of Emergency Medicine, Rhode Island Hospital, Providence. **Marita R. Mann, MPH,** is Research Assistant; and **Sarah E. Bowman, MPH,** is Project Manager, Department of Emergency Medicine, Rhode Island Hospital, Providence. **Nickolas Zaller, PhD,** is Assistant Professor of Medicine, Warren Alpert Medical School, Brown University, Providence, RI, and Research Scientist, Department of Infectious Diseases, Miriam Hospital, Providence, RI. **Xaviel Soto, BS,** is Prescription Monitoring Program Coordinator; and **John Gadea Jr., PharmD,** is Director, Department of Consumer Protection, Hartford, CT. **Catherine Cordy, BSPharm,** is Director; and **Patrick Kelly, PharmD,** is Associate Director, Board of Pharmacy, Department of Health, Providence, RI. **Peter D. Friedmann, MD, MPH,** is Professor of Medicine, Warren Alpert Medical School, Brown University, Providence, RI, and Director, Department of General Internal Medicine, Rhode Island Hospital, Providence.

Correspondence: Traci C. Green, PhD, MSc, Rhode Island Hospital, 55 Claverick St., 2nd floor, Providence, RI 02903. Fax: 401-444-2249. E-mail: traci.c.green@gmail.com

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Increases in fatal overdose since the mid-1990s have been driven by substantial growth in opioid analgesic prescriptions and nonmedical use of prescription opioids,[1–5] among other variables.[6] Similarly, opioid-related emergency department visits and hospitalizations have increased during the same period.[7–10] In Rhode Island (RI) and Connecticut (CT), overdose has surpassed motor vehicle crashes to become the leading cause of unintentional injury death.[11,12] National survey data show that RI has the highest per capita illicit drug use in the country and ranks third in the country for nonmedical use of prescription opioids among individuals 12 years or older, behind Oklahoma and Oregon.[13]

Prescription monitoring programs (PMPs) are an emerging tool with potential to influence risks to patients associated with abusable medications, especially prescription opioids. PMPs offer more detailed information than patients themselves or single-institution pharmacy records often provide, permitting verification of patient self-reported prescription history of abusable medications, determination of filling multiple prescriptions of the same drug from multiple providers (i.e., questionable medication behavior or "doctor shopping"), and cataloguing of medications that may suggest contraindications or increased risk of adverse events such as overdose. PMPs exist in 39 states to track prescriptions of controlled medications, and their expanded use is a cornerstone of President Barack Obama's inaugural National Drug Control Strategy of 2010.

Pharmacists are on the front lines of the prescription opioid abuse epidemic. They are the critical link between prescriber and medication and between medication and patient. Pharmacists also are the health professionals most affected by PMPs. Surveys of pharmacists' attitudes toward PMPs suggest that one of the primary motivations to use them is to decrease diversion opportunities. Fass and Hardigan,[14] in their survey of Florida pharmacists, found that a majority across practice settings believed that the PMP would decrease the incidence of doctor shopping, that they would not be discouraged to dispense controlled substances if a PMP was implemented, and that they did not believe that PMP implementation would be an invasion of patient privacy. Ulbrich et al.[15] found that community pharmacists were primarily motivated to use the Ohio PMP to "assist with decreasing doctor shopping."

However, little data exist on the effect of PMP use on pharmacy practice patterns. PMPs are available but underused by pharmacists. Most state PMPs report that less than 25% of health professionals use PMPs to obtain patient reports,[16] and few states require checking the PMP before dispensing medication.

At a Glance

Synopsis: This study provides insight into the mechanisms of how use of an electronic prescription monitoring program (PMP) by pharmacists can influence practice. By surveying pharmacists in Rhode Island and Connecticut, the authors found that PMP use was associated with greater awareness of potential abuse of prescription opioids and less misrepresentation of pharmacy stock to patients when faced with suspicious medication use behavior. However, pharmacists who used the PMP were less likely to discuss concerns about "doctor shopping" or diversion with patients directly. As currently organized and accessed, prevailing PMP systems may limit the extent of the influence of their data on pharmacy practice and patient interactions.

Analysis: *These results suggest an opportunity to test approaches to improve interactions between pharmacists and patients suspected of doctor shopping and, more generally, improve interactions around abuse of prescription opioid medications. Such approaches could include training, education, interprofessional cooperation, and construction of private counseling areas. The substantial endorsement for continuing pharmacy education in safer prescribing and dispensing of prescription opioid medication suggests that high interest and demand exist for useful tools in handling PMP data, safer opioid prescribing, and dispensing and related topics. Future research could consider interventions to reduce diversion and patient risk that explore use of PMP data by pharmacists as a drug abuse or overdose prevention counseling tool, consider interprofessional cooperation efforts and provider–pharmacist interventions, and test effects of pharmacy education targeted at PMP use and addiction counseling.*

Objectives

The aims of this study were to (1) assess differences in PMP use between two adjacent states with different PMP pharmacist accessibility, (2) explore use of PMPs in pharmacy practice, and (3) examine associations between PMP use and pharmacists' responses to suspected diversion or doctor shopping.

Methods

CT and RI PMPs

Controlled substance data from licensed CT pharmacies are electronically uploaded and securely stored in a central database maintained by the Drug Control Division of the Department of Consumer Protection (DCP). Since July 2008, health professionals licensed to prescribe or dispense controlled substances in CT who have registered with the PMP online system can actively query the PMP database about potential patients' Schedule II through V prescriptions. The CT PMP patient report is generated within a matter of seconds and readied as a