Pain and Prescription Monitoring Programs in the Emergency Department

Knox H. Todd, MD, MPH

From Beth Israel Medical Center, New York, NY.

SEE RELATED ARTICLE, P. 19.

The prevalence of pain among emergency department (ED) patients is as high as 78%, and among those with pain, underlying chronic pain conditions are present in 40%.1-5 A recent national survey suggests that 24 million adults with chronic pain visit the ED annually and that 12 million visits are due to exacerbations of chronic pain syndromes.6 Substance use is also highly prevalent. The National Survey on Drug Use and Health estimates that in 2003, 19.5 million Americans (8.2% of the population aged 12 years or older) used an illicit drug during the past month.7 The survey documents an increase in the lifetime reported nonmedical use of prescription analgesics between 2002 and 2003, from 29.6 million to 31.2 million persons. Emergency physicians prescribe a number of analgesics, showing recent increases in abuse, including (in order of magnitude) Vicodin, Lortab, Lor cet, Percocet, Percodan, Tylox, and Tramadol.

Although pain is far more common than substance abuse, emergency physicians will frequently encounter both among patients. Professional discussions of pain in the ED often center on concerns of being duped by patients who fabricate symptoms to obtain opioids, so-called drug-seeking behavior. Complicating this issue, such behaviors may represent an appropriate response by those with untreated chronic pain for whom treatment resources are lacking. In managing pain complaints, emergency physicians are responsible for beneficence and nonmaleficence. We must treat pain and ameliorate suffering while minimizing the extent to which our decisions enable substance abuse by our patients and increase the supply of prescription opioids available for abuse by the general public.

Prescription monitoring programs hold promise to assist us in this task. Such programs have been with us since the 1930s, when California and Hawaii mandated duplicate or triplicate prescription forms for controlled substances. Paper-based prescription monitoring programs expanded during the next 5 decades, and in the 1990s, states began using computer technology to collect these data.8 In general, prescription monitoring programs collect prescribing and dispensing data from pharmacies, analyze these data, and disseminate them to prescribing physicians and regulatory bodies, including law enforcement. Prescription monitoring programs differ by state and are administered by professional boards, health departments, and human services agencies. In some states, justice departments or state police may administer the system.

The pace of prescription monitoring program development accelerated rapidly in this decade. Since 2002, the Harold Rogers Prescription Drug Monitoring Program, administered by the US Department of Justice, awarded more than 100 grants for approximately $48 million, with an additional $7 million allocated by Congress for fiscal year 2010. On August 11, 2005, George W. Bush signed the National All Schedules Prescription Electronic Reporting Act into law. This act authorized a new system of federally funded, interoperative, state-based prescription monitoring programs; however, federal funding to support this program (through the US Department of Health and Human Services) became available only in fiscal year 2009, and the amount of funding has been limited ($2 million thus far).

Many of us have received notices from our state prescription monitoring program that a patient we treated months ago received multiple prescriptions from other providers. Given the proliferation of electronic medical records and integrated health information, we may soon be confronted with patients’ prescription histories, generated automatically on prescribing a controlled substance. What will we do with this information?

In this issue of Annals, Baehren et al9 explore the influence of real-time information from one prescription monitoring program, the Ohio Automated Rx Reporting System (OARRS), on physician decisionmaking for adults presenting to the ED with pain unrelated to an acute injury or illness.9 To date, little research has examined the efficacy and safety of prescription monitoring programs in clinical practice (and none in emergency medicine); thus, the attempt by Baehren et al to study the Ohio system is laudable. That being said, the study has a variety of limitations that weaken any inferences we can make on the effect of the prescription monitoring program.

In the study by Baehren et al,9 clinicians were asked about their prescribing plans before and after viewing information from the OARRS database. The study provides information on 2 groups, patients and providers.
With regard to patient selection, convenience sampling was used, and we are told that among adults presenting with a variety of pain complaints, research assistants (second-year medical students) excluded those judged to be “acutely ill or injured.” We are given no additional guidance as to how acute illness or injury was defined, and the potential for selection bias resulting from this necessarily subjective judgment is large. One might assume that acute injury, if not illness, is easily recognized; however, neck and back strains are notoriously difficult to classify in this way. Acute versus nonacute illness assignment is even more difficult.

The authors do not report the number screened for study inclusion, but 199 subjects were enrolled during 2 months in an ED with an annual census of 31,000. According to published estimates of ED pain prevalence and cause, 10 times this number of eligible patients might have presented during 2 months. It is possible that research assistants preferentially enrolled patients with a higher perceived risk of substance abuse, which is suggested by the low proportion of older subjects enrolled (only 7% were older than 60 years compared with almost 20% in the general ED population) and near-equal sex distribution (female patients account for the majority of pain-related visits, particularly when unrelated to trauma). Similar issues of selection bias confound much research on pain and substance abuse (eg, study samples derived from tertiary chronic pain centers with overrepresentation of comorbid substance abuse disorders), accounting for widely varying estimates of substance abuse prevalence among those with chronic pain.

Although selection bias may have tilted the sample, the OARRS data, as presented, suggest high rates of aberrant drug-related behaviors. The investigation is a good first step, and future work should provide more granular analyses of these patients and their behaviors. With regard to physician data, we are unable to determine how the findings might be confounded by individual physicians. Given that, among 18 practitioners, the lead author of the article treated 30% of the patients and 4 physicians treated almost two thirds of the sample, the potential for confounding by a single physician is high.

The authors report that OARRS data resulted in altered opioid prescribing plans for 41% of cases, with plans for less opioid in 61% but more opioids for a full 39% of cases. According to the way the data are presented, we cannot determine how factors from OARRS influenced the direction of changes in opioid prescribing. Such divergent results may be explained in part by research from Tamayo-Sarver et al, published in *Annals*, suggesting that physicians’ decisionmaking related to opioid prescribing is highly idiosyncratic. They surveyed American College of Emergency Physicians membership, presenting vignettes for 3 painful conditions (migraine, back pain, and ankle fracture), and found that self-reported likelihood of prescribing opioids for similar conditions varied widely between physicians. When “charged” information (eg, asking for “something strong” or that “oxycodone is the only thing that has worked in the past”) was added to the vignette, the same clinical information evoked changes in opposite directions by different physicians. Thus, opioid-related decisionmaking may be more a Rorschach test of physicians than of patients.

Although the Baehren study has limitations, it focuses our attention on aberrant drug-related behavior in the ED, and only a limited amount of research has addressed this problem. In 1996, Zechnich and Hedges measured community-wide use of ED services by patients with drug-seeking behavior. In this retrospective study, patients were categorized as drug seeking if they sought care at a university hospital in Portland, OR, for a specific pain-related diagnosis (ie, ureteral colic, toothache, back pain, abdominal pain, or headache) and were either independently identified on at least one other local hospital’s “patient alert” list or experienced a drug-related death during the year in question. After identifying 33 such patients, they determined the frequency of their ED visits at each of 7 local hospitals and conducted detailed chart reviews of their visits at 3 of these hospitals.

The patients were younger and half were female patients. The 33 patients visited EDs, visited urgent care clinics, or were hospitalized a total of 379 times during the study period, an average of 12.6 visits per person annually. Although chart reviews identified 17 patients who were told they “would receive no further narcotics” at a given facility, these patients subsequently received controlled substances from another hospital in 93% of cases and from the same facility in 71% of cases.

The informal maintenance of lists for patients frequently treated in the ED is a common practice. In an Iowa mail survey, Graber et al described the use of what were referred to as “problem patient files.” Fifty-eight percent of ED medical directors acknowledged using such files, consulting them an average of 2.6 times per week. Calls from EDs requesting information about patients in these files were estimated to occur 23 times per year. Rarely were explicit policies established for limiting access to these files, and information was added to the records informally.

In 2000, Pope et al from Vancouver described a case management program for frequent visitors to their inner-city ED. Of 24 patients described in this study, 5 were said to exhibit drug-seeking behavior, and 8 patients experienced alcohol and drug abuse, personality disorders, and chronic pain. These 24 patients accounted for a staggering 616 visits annually (median 26.5 visits per year). After the implementation of individualized chronic care plans, ED use by this group of superutilizers decreased to a median of 6.5 visits per person per year.

In a 2003 *Annals* article, Geiderman discussed ethical, legal, and regulatory considerations surrounding the use of “habitual patient files.” The article acknowledged common and informal use of such files and promoted the development of formal standards for their use. The author observed that such files have never been demonstrated to be effective in either reducing ED use by drug-seeking patients or in altering care.
patterns and suggested the need for research to determine their effect. Finally, the author called for physician education to promote the identification and treatment of ED patients with substance abuse disorders.

Given the concentration of patients with substance abuse disorders, the ED is an appropriate site for screening and intervention. Prescription monitoring programs may provide a useful tool in this regard; however, emergency physicians receive limited training in recognition and appropriate interventions for such problems, and an air of pessimism characterizes physicians’ estimation of success for many substance abuse therapies. Translating our knowledge of therapeutic strategies into substance abuse treatment will require overcoming much clinical inertia.

Managing patients with complicated pain syndromes and coexisting substance abuse disorders can be overwhelming, and in dealing with such patients, emergency physicians may struggle to maintain a truly therapeutic stance. The hectic nature of emergency medicine practice often does not allow sufficient time for precisely characterizing patients with complex pain complaints, and clinicians may lump legitimate pain behaviors with the ploys of those seeking opioids inappropriately. Despair and hostility may color our interactions, resulting in more alienation of patients in need of treatment. This is particularly likely to happen in communities without multidisciplinary treatment centers for either substance abuse disorders or chronic pain and for patients with inadequate health care insurance. Thus, patients with chronic pain or substance abuse join the larger group of those with unmet health care needs for a variety of conditions that currently crowd our EDs.

Relieving pain and suffering is a fundamental responsibility of emergency medicine, and we have a concurrent duty to limit the personal and societal harm that can result from prescription drug abuse. Used wisely, prescription monitoring programs are a welcome tool in our arsenal. Our specialty should continue to use sound science to reduce the current variability in our practices.

Supervising editor: E. Martin Caravati, MD, MPH

Funding and support: By Annals policy, all authors are required to disclose any and all commercial, financial, and other relationships in any way related to the subject of this article that might create any potential conflict of interest. The author has stated that no such relationships exist. See the Manuscript Submission Agreement in this issue for examples of specific conflicts covered by this statement.

Publication date: Available online March 25, 2010.

Reprints not available from the author.

Address for correspondence: Knox H. Todd, MD, MPH, Beth Israel Medical Center, First Avenue at 16th Street, New York, NY 10003; 212-420-2813, fax 212-420-2807; E-mail ktodd@chpnet.org.

REFERENCES


CORRECTION NOTICE

In the May 2010 issue, in the letter to the editor by Noble et al (“Decision Rule for Imaging Utilization in Blunt Abdominal Trauma – Where is Ultrasound?”; pages 487-488), an author’s name was spelled incorrectly; it should have read Beatrice Hoffmann.