methadone-containing medications was 24.4 (23.4), 20.5 (19.9), and 79.4 (46.9) U, respectively. A total of 54% and 86% of donors lived within a 10- and 20-mile radius of the nearest donation location, respectively.

Comment. Leaders in our region are concerned regarding the extent of nonmedical use of prescription drugs and are taking a multifaceted approach to address prescription drug abuse, including increased interprofessional provider education that focuses on patient screening and collaborative accountability; expanded utility of the controlled substance monitoring databases; and propagation of local take-back events. This approach is in alignment with the Office of National Drug Control Policy’s 2011 Prescription Drug Abuse Prevention Plan. Participation in take-back events is the only direct, environmentally sound method for patients to remove scheduled medications from their home.

In a region where 12.1% of 12- to 17-year-olds and 6.2% of individuals 18 years and older reportedly use OPRs for nonmedical purposes and sales of OPRs per capita are disproportionately high, removal of 1128 containers and more than 11 000 doses of controlled substances may have a considerable impact on the potential for drug diversion in this region. It is noteworthy that a majority of donors traveled 10 miles or less to a donation site, which reveals the limited geographical coverage of take-back events in our rural Appalachian region. These data suggest that geographical proximity needs to be considered as permanent controlled substance disposal methods are legislated and developed. Moreover, the regional impact of take-back events may be enhanced considerably by expanding the number of local and community-based take-back events. Conservatively, we would need to execute 5 to 10 times as many take-back events to encourage optimal regional participation; however, the challenges of take-back event expansion can be considerable because many resources for implementation are required, including collaboration between the DEA, law enforcement agencies, and community volunteers.

The Secure and Responsible Drug Disposal Act of 2010 encourages “a variety of methods of collection and disposal of controlled substances.” Drug take-back events serve multiple purposes through proper disposal of medications donated by regional residents; however, the extent to which such programs are addressing the prescription drug abuse epidemic has yet to be determined.

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The Relationship Between Electronic Health Records and Malpractice Claims

Federal policies have created incentives for the adoption and meaningful use of electronic health records (EHRs). While EHRs enhance documentation, make visits more efficient, reduce medication errors, and allow providers to track and manage their entire patient population, some physicians harbor reservations about potential unintended consequences of EHRs, including a possible increased risk of adverse events. Given the potential of EHRs to reduce adverse events and health care costs, the question of whether EHRs reduce the risk of malpractice lawsuits is a logical one. Malpractice claims are associated with harm to patients and are financially costly. Actual and feared malpractice claims may contribute to rising health care costs owing to the practice of “defensive medicine.”

Risk factors for medical error and resultant malpractice claims, including poor communication between providers, difficulty in accessing patient information in a timely manner, unsafe prescribing practices, and lower adherence to clinical guidelines, may be ameliorable by health information technology. The high quality and availability of proper documentation in EHRs may increase the likelihood of successful defense against malpractice claims.

Our prior work has shown a lower rate of paid claims among Massachusetts physicians using EHRs. That study...
was limited by imprecision in the temporal relationship between EHR adoption and paid malpractice claims. Available data also did not allow us to determine whether the actual rate of claims was reduced among EHR-using physicians or whether the reduction was attributable to proportionately fewer claims leading to payment. Therefore, we undertook this follow-up study.

Methods. We merged closed-claims data from a major malpractice insurer in Massachusetts for physicians covered from 1995 to 2007 with data from surveys administered to a random sample of Massachusetts physicians in 2005 and 2007 (response rates, 71% and 79%, respectively), comprising a final sample of 275 and 189 physicians, respectively. Survey methods are described elsewhere.7

Because physicians in the sample were insured for different durations and used EHRs for variable amounts of time, the number of insured years was calculated for each physician before and after EHR adoption. We used Poisson regression to determine whether EHR use was associated with malpractice claims, modeling the rate of malpractice claims per year in periods with and without EHRs and adjusting for clustering by physician. We used the generalized linear mixed models version of Poisson regression to account for correlation between periods.8

Results. Of the 189 physicians surveyed in both 2005 and 2007, a total of 27 (14.3%) were named in at least 1 malpractice claim. Overall, 33 of the 275 physicians from multiple surgical and medical specialties who responded in 2005 and/or 2007 incurred a total of 51 unique claims (Table); 49 of these claims were related to events occurring before EHR adoption, and 2 were related to events occurring after EHR adoption. The use of EHRs was associated with a lower rate of malpractice claims, with an estimated relative risk of 0.16 (95% CI, 0.04-0.71).

Comment. We found that the rate of malpractice claims when EHRs were used was about one-sixth the rate when EHRs were not used. This study adds to the literature suggesting that EHRs have the potential to improve patient safety and supports the conclusions of our prior work,6 which showed a lower risk of paid claims among physicians using EHRs. By examining all closed claims, rather than only those for which a payment was made, our findings suggest that a reduction in errors is likely responsible for at least a component of this association, since the absolute rate of claims was lower post-EHR adoption.

Unmeasured factors may, in part, account for the apparent 6-fold reduction in malpractice claims attributed to EHRs. For example, physicians who were early adopters of EHRs may exhibit practice patterns that make them less likely to have malpractice claims, independent of EHR adoption; these early adopters contribute a disproportionate amount of time in our analyses, favoring an effect of EHRs on reducing malpractice claims. Furthermore, other interventions may have occurred concurrent with EHR implementation that could account for some of the observed reduction of malpractice claims attributed to EHRs.

Our study featured a long observation period, during which many of the practices adopted EHRs, enabling a pre-post assessment. Generalizability may be limited, as participants included only those physicians in Massachusetts who were affiliated with Harvard Medical School, Boston, and who were covered by 1 malpractice insurer (CRICO/RMF [Controlled Risk Insurance Company/Risk Management Foundation]). The short period after EHR adoption may have limited our ability to ascertain whether claims that are more delayed (eg, missed or delayed diagnoses) are affected by the use of EHRs.

While this study includes only a small number of post-EHR claims, it suggests that implementation of EHRs may reduce malpractice claims and, at the least, appears not to increase claims as providers adapt to using EHRs. The reduction in claims seen in this study among physicians who adopted EHRs lends support to the push for widespread implementation of health information technology.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Claims Before EHR Adoption (n = 49)</th>
<th>Claims After EHR Adoption (n = 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary responsible service</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermatology</td>
<td>2 (4)</td>
<td>0</td>
</tr>
<tr>
<td>Family medicine</td>
<td>3 (6)</td>
<td>0</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>1 (2)</td>
<td>0</td>
</tr>
<tr>
<td>General surgery</td>
<td>13 (27)</td>
<td>0</td>
</tr>
<tr>
<td>Internal medicine</td>
<td>8 (16)</td>
<td>1 (50)</td>
</tr>
<tr>
<td>Neurosurgery</td>
<td>2 (4)</td>
<td>0</td>
</tr>
<tr>
<td>Obstetrics/gynecology</td>
<td>4 (8)</td>
<td>0</td>
</tr>
<tr>
<td>Orthopedic surgery</td>
<td>3 (6)</td>
<td>1 (50)</td>
</tr>
<tr>
<td>Otolaryngology</td>
<td>5 (10)</td>
<td>0</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>1 (2)</td>
<td>0</td>
</tr>
<tr>
<td>Plastic surgery</td>
<td>2 (4)</td>
<td>0</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>3 (6)</td>
<td>0</td>
</tr>
<tr>
<td>Pulmonary disease</td>
<td>1 (2)</td>
<td>0</td>
</tr>
<tr>
<td>Urology</td>
<td>1 (2)</td>
<td>0</td>
</tr>
<tr>
<td>Time between date of loss and assert date, mean (SD), y</td>
<td>2.5 (1.1)</td>
<td>1.6 (2.0)</td>
</tr>
<tr>
<td>Claims resulting in a payment</td>
<td>13 (27)</td>
<td>0</td>
</tr>
</tbody>
</table>

Abbreviation: EHR, electronic health record.

All values other than time between date of loss and assert date are expressed as number (percentage).

Date of loss is defined as the date, often approximate, when the malpractice event occurred. Assert date is defined as the date on which the malpractice suit is filed in a court of law.
and Management, Harvard School of Public Health (Dr Bates), Section of General Internal Medicine, VA Boston Healthcare System (Dr Simon), and Division of General Internal Medicine, Brigham and Women’s Hospital (Drs Quinn, Bates, and Simon), Boston, Massachusetts; and Chronic Disease Research Group of the Minneapolis Medical Research Foundation, Minneapolis, Minnesota (Ms Kats).

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**COMMENTS AND OPINIONS**

Long-term Analgesic Use: Sometimes Less Is Not More

We read with interest the article by Alam et al.1 The investigators reported that the risk of long-term opioid use is greatly increased when prescribed in the first 7 days following a low-pain short-stay surgical procedure and suggest that “long-term postoperative analgesic use may best be addressed by preventing its initiation.”

We wonder if these conclusions can be wholly justified based on the figures presented and whether the problem of chronic postsurgical pain may be more significant than the authors suggest. It has been shown that the incidence of moderate to severe pain 24 hours after cataract surgery may be as high as 6.8%, and after laparoscopic cholecystectomy, 57.1%.2 This is certainly not low-pain surgery. The authors’ figures show that most patients undergoing cataract surgery do not need further analgesia, but there is a group of patients who need pain relief in the subsequent week. It has been shown that pain at 24 hours may be much worse than immediately after the procedure.3 Rather than overprescribing analgesia in the first week, are we underestimating the pain of cataract surgery and putting patients at risk of chronic postsurgical pain at 1 year?

The authors state that if chronic postsurgical pain were a significant factor, they would expect the risk of long-term analgesic use to be higher for laparoscopic cholecystectomy compared with the other groups studied, which was not the case. However, those undergoing laparoscopic cholecystectomy received more opioids in the immediate postoperative period than those undergoing cataract surgery (65.3% and 4.9%, respectively), so perhaps their acute pain was better anticipated and treated, decreasing their risk of progression to chronic pain.

We support the broad concept of monitoring and reducing the long-term use of potentially harmful analgesics but believe this should be balanced by the understanding that inadequate treatment of pain in the elderly population can cause unnecessary suffering, delayed recovery, and adverse pathophysiological effects such as cardiac ischemia.4 Furthermore, persistent postsurgical pain may cause a loss of function and mobility and have deleterious psychosocial effects.5

While taking into account the potential adverse effects of long-term analgesic use, we stress that the emphasis should be on targeted multimodal pain therapies in the immediate postoperative period in order to decrease the requirement for long-term analgesic use.

When it comes to perioperative analgesia, it is not a question of “less is more,” but “the correct amount is the right amount.”

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