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Prescription Opioids, Overdose Deaths, and Physician Responsibility

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THE STUDY OF OVERDOSE DEATHS IN WEST VIRGINIA by Hall and colleagues in this issue of JAMA¹ revealed that opioid analgesics contributed to 93% of those deaths and most of these potentially avoidable deaths occurred in younger persons (aged 18-44 years). These disturbing findings are certain to raise questions about physician prescribing practices, the safety and adverse effect profiles of opioid medications, and the appropriate management of pain. These findings also raise several important questions for physicians who are trying to balance their duty to relieve pain in individual patients and their obligation to prevent the broader public health problems of addiction and overdose death.

First, do these overdose deaths suggest excessive opioid prescribing practices? The 2006 death rate from unintentional overdose by prescription drugs in West Virginia was 16.2/100 000 population, more than 2 times higher than the US average of 5.6/100 000 population during the same period.² Also, from 2000 to 2005, the number of opioid prescriptions in West Virginia increased at a higher rate than in most other states,³ although rates of opioid prescribing increased significantly in all states.^{3,4} The example from Hall et al illustrates the significant regional variation in opioid prescribing practices and one of the direct relationships reported between rates of opioid prescribing and opioid problems such as illicit use of and overdose deaths from these opioids.⁵

These data combined with the findings of Hall et al make it tempting to suggest that the time has come to restrict opioid prescriptions for chronic nonmalignant pain. However, given the aging of the general population, the concomitant increases in prevalence of pain-related diseases such as arthritis, and the demonstrated effectiveness of opioids in relieving pain, clinicians need to develop more reasonable, patient-centered approaches to address chronic pain.^{6,7} Rather than avoiding opioids altogether, a more reasonable response could be to limit and monitor prescriptions of opioids that are most likely to be diverted. Another reasonable action includes structured monitoring of patients

who require long-term treatment with opioids with urine drug screens and opioid agreements. At present, primary care physicians appear to be only rarely using these mechanisms.^{4,7,8}

Second, what does the study by Hall et al suggest about the role of addiction in overdose deaths and about physician responsibility for addiction? In this study¹ 79% of the cases of overdose deaths also tested positive for alcohol and other drugs, suggesting that many to most of these individuals were addicted. But 56% of decedents had no registered prescription for an opioid and another 20% had misrepresented themselves to 5 or more physicians to receive opioid prescriptions ("doctor shopping"). These findings suggest that few of the overdoses resulted from physician-initiated inadvertent addiction (iatrogenic addiction).

Reported prevalence rates of iatrogenic addiction vary from 2.8%⁸ to 21%⁹ of patients prescribed long-term opioids (>6 months) for nonmalignant pain. Part of the reason for the variability of prevalence estimates is the unfortunate confusion of the terms "dependence" and "addiction." According to O'Brien et al,¹⁰ most patients receiving long-term prescriptions for opioid drugs show some symptoms of physiological dependence such as tolerance and mild to moderate withdrawal. In contrast, "addiction" is a pathological, behavioral syndrome characterized in part by cravings for, loss of control over, and inability to abstain from opioids. These terms are not synonymous but too few physicians understand the differences.

Contributing to the confusion is the fact that some of the behavioral symptoms associated with loss of control in addiction (eg, demands for early refills, requests for larger doses, emotional outbursts) may also result from undermedication in pain patients.^{8,11}

Third, what do the data from the study by Hall et al suggest about the role of prescription diversion and overdose deaths and, in turn, about physician responsibility for prescription diversion? Among the most concerning findings from this study was that 56% of those whose overdose was attributed in part to "prescribed opioids" were never actually prescribed these medications.¹ Some of these opioids

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See also p 2613.

may have been stolen from pharmacies or from patients legitimately prescribed the opioids. An additional source of "prescribed" opioids is the Internet, from which a wide variety of opioid analgesics can be directly purchased without a prescription.¹² Physicians cannot control all these types of diversion but they can advise all patients prescribed opioids to secure them in a safe place.

However, it is clear that some proportion of the opioids in the study by Hall et al were prescribed but then diverted. Some patients with legitimate need for pain medication may have sold part of their prescription, either to supplement their income or to pay for that prescription. Some opioid prescriptions may have been obtained from physicians through frank deception, perhaps by individuals who convincingly portrayed false pain symptoms repeatedly and to multiple physicians. Many states and many health care systems maintain an active listing of all patients prescribed opioid analgesics that seemingly should proactively inform physicians about other opioid prescriptions for an individual patient.¹³ Yet these systems have to be accessed separately from other medical records; they are often difficult and time-consuming to use; and in areas where patients may come from different states, each state system must be scanned separately. This is clearly an area in which technology, health policy, and physician practice standards must come together to foster practical prevention of opioid diversion.

In addition to improving available opioid prescription tracking systems, there are 3 additional suggestions drawn from published guidelines^{4,7,8,14,15} that might reduce the public health threats from prescription diversion, without compromising pain management.

When deciding whether to prescribe an opioid, physicians should ask patients about their prior and current histories of alcohol and other drug use. Patients with histories of substance use, mental health problems, or both should receive special attention and comanagement from pain management specialists when possible. Treatment of mental health disorders should be considered part of successful pain management.^{10,12,14}

Physicians also should consider an opioid treatment agreement (contract) with the patient stipulating the frequency of obtaining medications, timely refills but no early replacements for lost prescriptions, safe storage, no sharing, single-source prescribing, monitoring through urine screens, and adherence to monitoring visits. The agreement should be presented as a way of simultaneously protecting the patient from adverse events and promoting a collaborative, responsible relationship.

Finally, for patients who are prescribed opioid medications, prescribing physicians should schedule follow-up vis-

its at least every 2 to 3 months, and more frequently for those with special risks. At those visits, a urine toxicological screen (including specific screens for oxycodone) should be performed to confirm adherence. Opioid doses should be re-evaluated regularly because analgesic response has been shown to wane at longer intervals.^{5,10}

Opioid drugs have well-known analgesic benefits but also can cause serious adverse public health effects. The clinical management of pain with opioid analgesics requires close oversight and deserves more research, especially in the context of primary care and other non-pain specialty settings.

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