It's Time to Adopt Electronic Prescriptions for Opioids

We are running out of ways to emphasize how dire the opioid overdose crisis has become. In 2015, United States drug overdose deaths exceeded 50,000; 30,000 involved opioids.[1] There were more deaths from opioid overdose than not only from motor vehicle accidents, but also than from HIV/AIDS at the peak of the epidemic in 1995.[2]

The role of surgeons is important for 2 reasons. First, we are likely to encounter many patients on chronic opioids. Older estimates suggest 5% of the general population use opioids chronically.[3] Cron et al[4] found that patients seeing surgeons may have significantly higher rates of use, with 21% of general surgery patients at the University of Michigan Medical Center using opioids at home prior to surgery.

Second, emerging evidence suggests that surgeons are unwittingly enablers of addiction, abuse, and overdosage. Waljee et al[5] cite administrative data suggesting that 3% to 10% of opioid-naive patients who receive narcotic prescriptions for low-risk surgery continue to take narcotics up to a year later. Moreover, the vast majority of prescription opiate abusers receive the drugs they use through diversion, most often from family members who have excess pills.[6] And, as Hill et al[7] document, surgeons frequently supply a large excess of pills, with 72% of narcotics prescribed for 5 outpatient procedures going unused. One hundred seventeen of 127 patients they tracked had excess pills; three-quarters retained the pills instead of disposing them. Cauley et al[8] also found, in data from the National Inpatient Sample, that rates of postoperative opioid overdosage among patients undergoing inpatient surgery doubled over the last decade. Surgeons are proving to likely be a significant source of the opioid supply fueling the current epidemic.

As a profession that inflicts pain as a necessary part of the care we provide, we have a responsibility to treat our patients' pain effectively and appropriately. But we also have a clear responsibility to help stem the tide of drug overdose deaths. Hill et al[7] and Haytham et al[9] detail prescribing practices with evidence of significant benefit. They include:

1. Counseling patients preoperatively to expect adequate pain control to function (eg, sleep, eat, ambulate) but not to achieve zero pain. (Function is a better indicator than pain level.)
2. Using nonopioid alternatives for patients undergoing procedures with only mild pain.
3. Checking the state's prescription monitoring program database to confirm that the patient is not receiving opioids through other clinicians.
4. Providing clear disposal instructions. (The FDA's recommended methods of disposal are to flush unused opioids down the toilet, or to bring to a pharmacy or other approved disposal sites.)
5. Prescribing the "minimum quantity necessary."

This last is, of course, the trickiest part. Hill et al usefully document how many opioid pills would be adequate to meet the needs of 80% of patients undergoing 5 procedures. For example, after partial mastectomy, 5 pills are sufficient; after lap chole or inguinal hernia, 15 are. These quantities are markedly lower than surgeons usually prescribe.[7]

One reason surgeons prescribe more is that we have generally lacked data to guide our opioid supply decisions—research agencies should support calculation of this information for all types of operations. Another reason, however, is that surgeons may often intentionally overprescribe narcotic pain relievers to meet the needs of 99% of patients (if not 100%). Why? Because, under federal regulations, patients stranded with an insufficient supply for their pain have no straightforward way to get a refill without a written prescription.[10]

I once had a patient arrive home out of state after surgery only to find he'd been inadvertently discharged without his script for pain medication. By then, he was miserable with pain. His pharmacy would not accept an emergency prescription by phone. A family member therefore had to drive back to the hospital 2 hours in the middle of the night to pick up a written prescription. It is the kind of experience patients and surgeons are both eager to avoid.

In 2010, however, the U.S. Drug Enforcement Agency issued regulations permitting electronic prescribing for controlled substances.[11] Such systems have numerous advantages: they prevent duplicate and forged prescriptions by using 2-factor authentication; reduce dosing errors; cross-reference prescription monitoring program databases; and simplify the prescription process for doctors and patients.[12,13] Electronic prescribing would make it far easier for surgeons to write smaller prescriptions that meet the needs of 80% of patients, or even 50%, knowing they could remotely order an additional supply if a patient needed it.

The technology is widely available, but few doctors use it. Although 81% of pharmacies are enabled to receive computerized opioid prescriptions;[12] more than 90% of physicians have electronic medical record systems;[14] and most can be enabled for controlled substances—only 8% of physicians are in practices that have enabled that capability and use it.[15]

Doing so is clearly feasible. In March, 2016, New York promulgated stringent opioid prescription requirements, including mandatory use of electronic prescriptions. By then, half of the state's doctors were already prescribing controlled substances electronically.[15]

With an epidemic of crisis proportions under way, we, as surgeons, must not wait for state and federal governments to require us to adopt practices and tools that could stem the massive oversupply of prescription opioids while still meeting patients' pain needs. Hospitals and practices all over the country are beginning to take action to adopt better systems and routines for prescribing narcotics. Surgeons should strongly encourage and support those efforts, including by advocating with information system managers for the adoption of electronic prescribing. Wherever possible, we should also encourage the collection of data to determine which practices and system designs are most effective.

Above all, however, we cannot sit idly by. We surgeons turn out to be suppliers of the excess prescription opiates fueling addiction and death by overdose. We have to change that. And we now know how we can.

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