Pharmacist prescribes education as key to curbing opioid abuse

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Technologies that make it harder for people to abuse opioids - like doctoring pills so that they produce unpleasant side effects if broken, crushed or injected—likely will have limited effectiveness in stemming the global epidemic of opioid abuse, according to Adam Kaye, a professor of pharmacy at University of the Pacific.

Writing in the latest issue of the journal *Current Pain and Headache Reports*, Kaye and his co-authors argue that such technologies are no substitute for education.

"Education is the foremost strategy," Kaye said. "We must educate primary care providers, surgeons, pharmacists and other health professionals, as well as patients. That education must take place prior to the starting point of opioid therapy - and it needs to be independent of the pharmaceutical industry."

The article, titled "Current State of Opioid Therapy and Abuse," lays out a grim diagnosis and alarming prognosis for opioid misuse and abuse:

- Opioid misuse increased by 4,680 percent between 1996 and 2011.
- Opioids were involved in 28,647 deaths in 2014, triple the number in 2000, and represented 61 percent of all drug overdose deaths.
- More than 90 percent of patients who survive a prescription opioid overdose continue to be prescribed opioids, usually by the

same prescriber.
- Prescription opioids are a gateway drug for heroin: Up to 80 percent of heroin users first took prescription opioids.
- The total cost of prescription opioid abuse in the United States has been estimated at $86 billion, including workplace, health care and criminal justice expenditures.

Kaye and his co-authors discuss three types of drug formulations that have been developed to deter opioid abuse:

- Physical barriers, such as polyethylene oxide, prevent accidental crushing or chewing.
- Sequestered aversive agents, such as niacin, cause adverse events in patients who chew or crush tablets.
- Sequestered opioid antagonists, such as naloxone, render the opioid ineffective.

The first two strategies may protect patients with no intent of abusing opioids from inadvertent overdose, but neither is likely to deter the intentional abuser, according to the authors. The third strategy carries a risk of sudden withdrawal for addicted patients.

"Pharmacists have a big responsibility for cutting down opioid abuse and deaths, whether it's Prince or other celebrities—or the guy down the street," Kaye said. "We have to be part of primary education efforts."

Recently, the FDA's Anesthetic and Analgesic Drug Products Advisory Committee and the Drug Safety and Risk Management Advisory Committee moved to require opioid education and broader pain management training for prescribers and the entire health care team, including pharmacists.