

Clinical Pain Medicine

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Study Shows Marijuana Use May Be Linked to Opioid Noncompliance

Ft. Lauderdale, Fla.—As medical marijuana use continues to grow, pain practitioners are beginning to ask what effect, if any, its use has on the issue of potential nonadherence to existing pain treatment. Now, a study by a private corporation has revealed that marijuana use is, indeed, associated with potential nonadherence in chronic pain patients prescribed hydrocodone.



“Physicians have different opinions on whether to test their patients for THC [a compound in marijuana],” said Michael K. DeGeorge, PharmD, associate director of medical affairs at Ameritox, a medication monitoring company based in Baltimore. “Either way, we thought it would be interesting to see if there was an association between marijuana use and nonadherence in patients, to give clinicians some information when implementing urine drug testing as part of their practice.”

To help shed some light on the issue, Dr. DeGeorge and his colleagues reviewed the results from 116,001 samples of patients who had been prescribed hydrocodone-containing medications between May 16, 2011 and May 15, 2012. Sample records were only included in the analysis if physicians had ordered testing for both marijuana and cocaine metabolites. Results were separated into three categories for analysis based on presence of illicit drugs: marijuana (THC) only, cocaine only and neither cocaine nor marijuana found. Results were further analyzed to determine the rates of having no hydrocodone detected and having other nonprescribed medications detected.

“We chose hydrocodone because it is the most commonly prescribed pain medication in the United States,” said co-investigator Eric Dawson, PharmD, associate director of medical affairs at the company.

As Dr. DeGeorge reported at the 2013 annual meeting of the American Academy of Pain Medicine (abstract 114), the investigators found that 15,153 of the samples were positive for THC only, whereas another 1,731 were



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positive for cocaine only. Neither drug was present in 99,115 samples.

In terms of nonadherence, 36.5% of the patients with THC and 59.6% of those with cocaine in their systems lacked evidence of the prescribed hydrocodone. By comparison, only 29.7% of the patients without either marijuana or cocaine were nonadherent. In other words, marijuana users were 1.36 times and cocaine users 3.49 times more likely to be nonadherent than patients who used neither drug.

The investigators also analyzed samples for the presence of other, nonprescribed medications, including opioids, sedative hypnotics and stimulants. They found that 29.1% of THC-positive samples had evidence of a nonprescribed medication, compared with 29.9% for cocaine-positive samples and 22% for those with neither marijuana nor cocaine. Odds ratio analysis revealed that marijuana users were 1.45 times and cocaine users 1.51 times more likely to have a nonprescribed medication in their system.

“I wasn’t really surprised that we found marijuana use to be associated with medication misuse,” Dr. Dawson said in an interview with *Pain Medicine News*. “But I was very surprised that it rivaled cocaine in terms of its association to other nonprescribed medications.”

Lynn R. Webster, MD, cautioned against drawing broad-based conclusions from the retrospective study. “The analysis is based on information reported to the company at the time the tests were ordered,” said Dr. Webster, medical director at CRI Lifetree in Salt Lake City, and president of the American Academy of Pain Medicine. “It is therefore difficult to know how accurate the information is. More importantly, almost all hydrocodone is immediate release, and may not be detected if the urine sample is taken outside the detection window. For example, if a patient is prescribed hydrocodone 7.5 mg and the last dose ingested was 12 or more hours before the urine was collected, hydrocodone may not be present. Similarly, we don’t know the dose and we don’t know when the urine samples were collected for the cocaine and THC groups.”

Whether or not physicians should consider regular marijuana testing is a complicated issue given the rift between state and federal laws. “In states where marijuana is illegal, I would recommend testing,” Dr. Webster noted. “I’d also recommend that physicians counsel patients to discontinue use if they find it in their system, since physicians must advocate for legal use of all medications.

“In states that have legalized marijuana, it’s still probably wise to test for it,” Dr. Webster added. “Here, too, I would recommend physicians advise their patients to discontinue use if they are planning to prescribe a scheduled drug, particularly an opioid. Prescribing an opioid to someone using marijuana—even in states that have legalized it—may present additional legal issues due to federal laws.”

—*Mike Vlessides*
