

## The Rapid Evolution of Urine Testing

***The technology to test and truly determine what drugs an injured employee is taking or not taking is rounding the home stretch.***

By DAN REYNOLDS, senior editor of Risk & Insurance®

The technology to conduct high-level quantitative clinical urine analysis has been around for decades, but it's only relatively recently that it's been improved to the point that it begins to create some form of return on investment for companies trying to get a grip on out-of-control drug spend.

"Twenty years ago, it would take me 30 days to dig Fentanyl out of your system," said Frank Fornari, the CEO of [Dominion Diagnostics](#), whose lab performs sophisticated employee drug testing for Marriott International and other clients. "Now it takes me 1.2 minutes."

Fornari explained how this type of technology has been around for 30 years and how, for 25 of those years, it was slow. In the last five years, because of nanotechnology applications, the efficiencies have improved "exponentially" and costs are dropping. The technology in Fornari's lab is called LC-MS/MS, which stands for liquid chromatography tandem mass spectrometry.

There are simpler, less expensive tests in wide use, but they haven't been exacting enough to do the kind of forensic work needed, according to Jerry Fogel, founder of the Coral Springs, Fla.-based healthcare and [workers' compensation](#) consultancy Imagine Clinical.

"You've got to remember urine testing has been a fairly sloppy, meat-cleaver approach with a lot of problems," Fogel said.

"It has either been prohibitively expensive or more importantly, the science hasn't been there, the technique hasn't been there," Fogel added.

"Frank deserves some credit for what he has brought into the market," Fogel said of Fornari. "He has actually brought a more detailed and scientific approach to this work, which allows it to have either the leverage with the patients or with the doctors or even the courts to hold all parties accountable for what has been going on."

So at this point, a full clinical analysis of a workers' comp patient using the technology in Fornari's lab could cost as much as \$500. But according to Jim Andrews, a senior vice president of pharmacy services for [Healthcare Solutions](#), it's not really accurate to measure the savings created by the test in terms of the prescriptions you might halt if you find out the patient isn't using them. There is another value to consider, according to Andrews.

"Is cost a barrier?" Andrews said. "Any type of clinical intervention cost could be perceived as a barrier."

"I think the outcomes prove that there is a benefit that far outweighs the cost. If you do a urine monitoring test and it comes back that everything is OK, is there a value to knowing everything is OK? And people struggle with that because that is a cost that does not have a hard value attached to it. But affirmation that things are working their way through the system correctly seems to be a good value," Andrews said.

The cost of that testing doesn't have to be replicated with every single employee that is on workers' compensation.

"I'm not saying take 100 injured workers and do 100 tests," Andrews said. "I think there is a way of taking the pharmacy data and profiling it and using an algorithm against it and targeting the appropriate patient."

And being close enough to your employees, or being in good communication with those who do know them well, can also take you a long way in deciding which employees should be tested with a liquid chromatography mass spectrometry system and which employees don't need that kind of scrutiny.

"Say, you are a good patient and you are on three drugs, and I test you and you are fine," Fornari said. "You show no behavioral symptomology, you are marching through your workers' comp case, you are improving, and you are

maintaining your steady state dose and you are fine and you are a low-risk patient. I could probably test you with an immunoassay and you would be fine," Fornari said.

"But, say, you have all of these aberrant symptoms and your pain scale is all over the place, I might want to test you every time you come in," Fornari said.

Currently, lab testing comprises about 5 percent of the overall healthcare budget, according to Fornari.

Added Andrews, workers' compensation could be the least managed piece of the overall healthcare puzzle, one with plenty of room for improvement with reliable lab results having the potential to be a bigger piece of that improvement.

"I think this is just a natural evolution, and the reason it is accelerating a little bit is because of the types of drugs that injured workers take are predominantly pain medications," Andrews said..

"And because of that there is a high cost, there is a high side-effect profile and there is certainly an abuse profile that is out there," Andrews said.

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