

New Alcohol Test Appears Fallible

Several medical professionals who say they did not touch a drink are testing positive; losing their jobs.

BY TIMOTHY F. KIRN
Sacramento Bureau

SAN DIEGO — Nancy Clark, a registered nurse, had been drug free and sober for 3 years when she tested positive for alcohol on the new ethyl glucuronide test, the same one used for many chemically dependent physicians who are entered into monitoring programs and are on probation.

She kept her job the first time, but then she tested positive again—and lost it.

So Ms. Clark bought a plane ticket. She flew almost 3,000 miles from Pennsylvania to San Diego to meet with the one person she thought might be able to help her and others in her situation: Dr. Greg Skipper.

"When I tested positive, I looked on the Internet, and everything I saw said this test was perfect," said Ms. Clark of Fleetwood, Penn., at the meeting where she met with Dr. Skipper—the annual conference of the American Society of Addiction Medicine.

"I thought: How am I ever going to be able to protest this?" she said.

Recent evidence, however, suggests that while the test may be highly accurate and sensitive, it may also be fallible,

said Dr. Skipper, who helped develop ethyl glucuronide (EtG) as a drug test to monitor whether a person has consumed alcohol.

In essence, the evidence suggests the test may be too good, in that it appears to pick up people who are exposed to alcohol in any number of ways without drinking it, said Dr. Skipper of Montgomery, Ala., director of that state's physician health program.

He says he knows of at least 60 people who claim that they have not touched a drink but have had positive results on the EtG test.

Consequently, some people who have not been drinking may lose their jobs, licenses, or even custody of their children. Still other people may be going back to jail.

For health care workers, washing hands with alcohol-containing sanitizers such as Purell might be the reason they are testing positive, Dr. Skipper said.

"We're getting data, and we're worried about what [they show]," Dr. Skipper said in an interview.

Ethyl glucuronide is a very specific metabolite of alcohol found in urine. It is considered a better test than a blood alcohol level, because it lasts much longer—about 5 days—depending on the amount ingested and individual variation.

Although it has been theorized that certain rare individuals could automatically ferment alcohol in their system, such as yeast in the bowel, it has been assumed

that a positive test meant someone had to have taken a drink.

At the meeting, Dr. Michael R. Liepman presented an experiment on the EtG test that he conducted using 24 abstinent subjects.

One group of subjects washed their hands with Purell (62% alcohol) 15 times at 4-minute intervals in a small enclosed room where, presumably, they would be inhaling the fumes from the washing. Each of those subjects was accompanied by another subject who did not wash their hands but stood close enough for inhalation.

A third group washed their hands in an air-flow chamber to prevent inhalation, and a fourth group served as controls.

Three of the subjects who washed their hands and could inhale the sanitizer had positive EtG tests 30 minutes after washing, as did one of the subjects observing in the same room, said Dr. Liepman, director of addiction psychiatry and research

at Michigan State University's Kalamazoo Center for Medical Studies.

That observer had a level of 350 ng/mL, while the cutoff used for a positive test in the experiment was 100 ng/mL, the same cutoff that is gener-

ally used out in the field.

None of the subjects who washed in the air-flow chamber had a positive test, though there were detectable levels.

Breathalyzer tests given to the subjects did not suggest any level of impairment.

The results confirmed that use of alcohol-containing hand wash can influence the EtG test, and the primary means appears to be inhalation, Dr. Liepman said.

"Recovering alcoholics, including those who are subject to urine monitoring, should avoid the use of alcohol-based hand sanitizer," he said.

Dr. Liepman said he was motivated to perform the experiment because two nurses in his practice, both of whom were recovering opiate addicts and both of whom were pregnant, had tested positive for ethyl glucuronide and violated their recovery employment contracts, he said.

Both of the nurses were suspended for 1 month, just at the time they needed to be accumulating vacation hours so they could take time off for the birth of their babies.

Both denied drinking, neither tested positive for any other drugs, and both were doing well on the job.

One nurse measured 270 ng/mL on the EtG test, while the other measured 215 ng/mL, levels that might be considered fairly low for a substance abuser who has fallen off the wagon, since two drinks can produce a level of 23,000 ng/mL, Dr. Liepman said.

Both nurses reported washing their

hands with sanitizer on the job upward of 30 times a day, a frequency that might explain why, among health care workers, so many of those who have been tripped up by the test have been nurses.

Dr. Skipper said that he does not want to see the test abandoned. He finds it frequently picks up monitored physicians whose alcohol use would not be detected otherwise, and even among those who deny drinking at first, 50%-80% later admit to it.

Random EtG testing surveys of physicians who are not supposed to be drinking in monitoring programs have found that around 7% will have a positive test result. It is important to catch those physicians to get them help, Dr. Skipper said.

Given the gathering evidence, however, the test needs to be used with some clinical judgment of the individual, he added.

"I am urging no use in administrative hearings and courts," he said. "It is a clinical test."

Moreover, if hand sanitizer can cause measurable EtG levels, then probably any product containing alcohol could, he noted. And products that contain alcohol are everywhere, ranging from the cold medicine NyQuil to asthma inhalers, topical testosterone, and bug spray.

In the laboratory, Dr. Skipper said he has found that two nonalcoholic beers will cause a level of 93 ng/mL and gargling with Listerine can trigger a level of 100 ng/mL.

"We have to expect that all recovering doctors are going to be using these products," noted Dr. Michael M. Miller of Madison, Wis., president of the American Society of Addiction Medicine, who attended the session on ethyl glucuronide at which Dr. Liepman's study was presented.

The EtG test appears to be used widely by physician monitoring programs. In a survey of physician health programs conducted this year, 29 of 31 responding programs reported that they use the test, compared with 17 of 46 programs that reported using it in 2004, said Dr. Michael Sucher, who serves as medical director of the physician health program in Scottsdale, Ariz.

Some of those states use it routinely, others just for cause.

Michigan, which is one of the states that does not use the test, did use it previously but stopped because there were too many challenges to cases of positive test results.

Dr. Sucher agrees with Dr. Skipper that a positive test result should not be used as the sole basis of punitive action.

"We all learned in medical school that you don't treat a number or a test result," he said at the meeting. "You have to have clinical correlation."

Meanwhile, Ms. Clark, who came to the meeting with two other nurses and a pharmacist who also have had their licenses suspended because of EtG testing, has been out of work for 6 months.

She noted that, without the positive results on the second test, her 3-year probation period would have been over 2 months ago. ■

Hospital May Spur Alcohol Counseling

BY MICHELE G. SULLIVAN
Mid-Atlantic Bureau

SAN FRANCISCO — Hospitalization may provide a unique opportunity to offer counseling to patients with alcohol problems.

"As a result of an acute medical event, many patients have a high motivation to change their drinking behavior," Jennis Freyer, Ph.D., said in an interview. "Hospitalization offers the chance to reach patients with alcohol-attributable disease proactively."

In a poster presented at the annual meeting of the Society of Behavioral Medicine, Dr. Freyer assessed openness to alcohol counseling in patients who stayed more than 24 hours in one of four German hospitals. Screening with the Munich-Composite International Diagnostic Interview identified 1,150 patients with alcohol problems. She assessed the severity of the alcohol problem with the Alcohol Use Disorders Identification Test and mental health with the Rand Mental Health Index.

Most of the patients (93%) were male; the mean age was 42 years. Dependence was the most frequently identified alcohol problem (49%), followed by alcohol abuse (12%), at-risk drinking (30%), and episodic heavy drinking (9%). The mean Alcohol Use Disorders Identification Test score was 19; the mean Mental Health Index score was 7.

She assessed the patients' openness for counseling by using a simple two-item true-false survey ("I'm open to learn more about help" and "I want to find out how to help myself"). Patients then completed the Readiness to Change Questionnaire and the Treatment Readiness Tool.

Overall, 66% of the patients were open to the idea of alcohol counseling. More of those with alcohol dependence were open to counseling than those with alcohol abuse or at-risk drinking (77% vs. 56%).

"Those with alcohol dependence are more likely to have developed problem recognition," said Dr. Freyer of the University of Greifswald, Germany. "Having identified alcohol as being part of their problem may increase their openness for counseling, especially when they feel helpless about their situation."

However, she noted, more than half of risky drinkers and those with alcohol dependence were still open to the idea of getting counseling.

In the Readiness to Change scale, those in the contemplation stage were twice as likely to be open to counseling as were those in the precontemplation stage. In the Treatment Readiness assessment, those in the contemplation stage were nine times more likely to accept counseling than were those in the precontemplation stage. ■