New Test May Better Identify Heavy Drinkers

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MIAMI — Compared with gamma-glutamyl-transferase measures, a new test that uses a combination of 27 blood chemistry values identifies twice as many men and 50% more women who heavily consume alcohol.

The finding of a study presented at the annual meeting of the American Society of Addiction Medicine "holds a lot of promise for reducing problem drinking, in a primary care practice, in a nonjudgmental way," according to Jim Harasymiw, Psy.D.

The test "can be part of an early intervention and prevention model to handle these issues," he said in an interview about his poster presentation at the meeting.

The new test determines the likelihood of heavy drinking in the previous 4-6 weeks, based on standard blood laborato-

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ry values, said Dr. Harasymiw, director of research at Alcohol Detection Services in Big Bend, Wisc.

The Early
Detection of
Alcohol Consumption
(EDAC) test
uses an algorithm that includes 27 blood
chemistry lev-

els, including monocytes, high-density lipoprotein, albumin, bilirubin, hematocrit, and liver enzymes. Dr. Harasymiw disclosed that he developed and is part owner of the EDAC test.

Test interpretation is done at a central site. Dr. Harasymiw and his colleagues plan to launch a Web site soon featuring the software for the algorithm. For a fee, physicians can enter the blood values for a particular patient and get results online.

The cutoff values for heavy drinking, compared with light drinking, are expressed as a percentage match with values from more than 1,700 individuals in a database. Heavy drinkers in the database reported more than five drinks (over 2.5 ounces of alcohol total) per day for men and more than four drinks (over 2 ounces of alcohol total) per day for women.

Dr. Harasymiw and his associates used the EDAC and the well-established gamma-glutamyl-transferase (GGT) liver enzyme test to assess 1,022 men (618 heavy drinkers and 404 light drinkers) and 583 women (228 heavy drinkers and 355 light drinkers). The mean age was 38 years. The participants were recruited from detoxification centers, hospitals, outpatient clinics, recovering alcoholic groups, Mormon churches, colleges, and professional associations.

"Guidelines say physicians should be screening for alcohol problems in their practices," Dr. Harasymiw said. "We have tried to get physicians to use questionnaires for many years, but it doesn't fit into their office practice, and some answers are subjective." Because the EDAC is based on routine blood values, it is

more objective and "gives a physician something they are comfortable talking about." With the results of the EDAC test, you can tell a patient, "You are drinking to a point that is causing biologic changes in your body," he added.

In specific populations, such as drunk drivers convicted for the third time, it becomes a diagnostic test, he said. "We tested this [EDAC test] in a number of different settings, and it worked as well or better than anything else out there."

The sensitivity of the EDAC among men was 65%, compared with 30% for the GGT. Sensitivity among women was 34% for the EDAC and 23% for the GGT. Specificity was 89% among men for the EDAC and 92% with the GGT. Among women, the specificity of the EDAC was 98%, compared with 94% for the GGT.

If a prevalence of 15% is assumed in the general population, for example, the EDAC has a 51% positive predictive value, compared with 40% for the GGT, among

men. The difference is even greater among women—a positive predictive value of 75% for the EDAC, compared with 41% for the GGT.

Some recent changes in CPT codes increase the likelihood of reimbursement for the EDAC test, Dr. Harasymiw said. "As of January 2007, there is a CPT code for brief screening and office intervention. We did not have this before." This also is a CPT code for a brief pathology consult that might be applicable, he added.

