

Laboratory Evaluation: Testing for Alcohol and Substance Use

Introduction

This resource provides information about laboratory testing for alcohol and substance use, including the appropriate role and uses for this testing as part of substance use monitoring and treatment. Limitations of substance use testing results and important considerations when conducting testing are also included.

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Testing to monitor drug use is an important component of every treatment regimen. However, when making a substance use disorder diagnosis or evaluating the associated physical harm from alcohol or substance use, the usefulness of laboratory testing results is limited. Alcohol and drug testing do not measure severity of the disease. Some important considerations for conducting laboratory testing are the following:

- No laboratory test establishes an unequivocal diagnosis of a substance use disorder; however, blood alcohol levels may confirm tolerance, and detection of a drug may confirm the origin of coma or confusion.
- Routine laboratory screening, including liver function tests, complete blood count (e.g., to detect anemia from chronic gastritis, to detect a slightly high Mean Corpuscular Volume [MCV], which can be caused by excessive alcohol consumption), and vitamin B12 and folate levels occasionally are the "red flags" that stimulate further diagnostic inquiry.
- Blood alcohol levels, breathalyzer test results, urine drug screens, and, less commonly, hair and saliva analysis can be used to assess patients for possible alcohol and other drug use. A drug screen may be useful in evaluating an adolescent with school problems, or in accidents, domestic violence, or other trauma situations.
- Performing urine and blood screens in some settings (e.g., school, employment) may be controversial, so it is advisable to obtain the patient's (and/or parents') permission before initiating such screens. Failure to do so can damage the physician–patient relationship and cause legal consequences for the physician.
- Blood, urine, and saliva studies add a crucially important dimension to the effectiveness of treatment programs. Testing adds structure and establishes limits that are critical aspects of helping patients regain self-control and self-respect.

For additional information about conducting a clinical evaluation to screen for alcohol or substance use, see the [Clinical Assessment of Substance Use Disorders](#) resource and browse the topics under Clinical Evaluation.