**Cotinine Testing FAQ’s**

Q. How does the specificity of salivary and serum cotinine in identifying tobacco-smoking status compare?

A. Serum and salivary cotinine levels were measured in 327 smoking and nonsmoking participants in a study. The sensitivity, specificity, and predictive values positive and negative of the cotinine levels in distinguishing self-reported current tobacco smokers from nonsmokers was high (88-100%) and essentially the same for both fluids.

Q. Is there a way to test levels of Cotinine vs just the presence of Cotinine?

A. For Serum and Saliva LabCorp does measure the test quantitatively (with numeric cutoffs values) not just qualitatively (positive or negative).

Q. With respect to second hand smoke affecting the results, what is our position?

A. The threshold of the test is set high enough that second hand smoke will not have an impact. According to LabCorp, there is no way that secondhand smoke affects the saliva testing result. The cutoff for the oral fluid is 20 ng/ml. Anything below that would simply show as a negative. The cutoff is set to eliminate any false reporting.

Q. What is the Detection window (time period) after last use of tobacco (before being metabolized in the system)?

A. LabCorp: Serum cotinine can be detected for up to 14 days. Any type of tobacco use will be caught by this testing – that includes e-cigarettes, nicotine patches or gum, etc. Depending on the specific brand saliva cotinine test is a very good detection method because it is accurate, inexpensive and non-invasive. The detection window for this type of procedure is around 7-10 days after use.

Q. What is the difference between Cotinine-Saliva vs. Serum?

A. Cotinine is detected in oral fluid at levels comparable to blood serum. In addition, plasma and oral fluid levels have been shown to correlate in patient samples, and oral fluid concentrations can be used to approximate plasma concentrations.\(^1\) Urine cotinine concentrations are generally higher. Cotinine has been detected in nonsmokers from environmental exposure. However, observed concentrations have been shown to be less than cotinine cutoff of 20 ng/mL.\(^2,3\)

Q. Why test for Cotinine rather than Nicotine?

A. The reason labs test for cotinine rather than nicotine is that nicotine leaves the body much quicker, notes the Centers for Disease Control and Prevention. After someone ingests nicotine through smoking, chewing or even touching tobacco, the chemical is absorbed into the body. Cotinine remains in the body after nicotine breaks down.

Resources:


4) Laboratory Corporation of America (LabCorp) Provider service department 2016