



Why all saliva detection devices are not equal

Deciding to implement a workplace drug and alcohol testing program is only the beginning of the process. Once the need for a formal testing regime has been identified, there are a series of flow-on decisions that need to be made. What type of testing will be utilised? Who will be tested? What substances will be part of the screening process? How often will testing be done? Even once the preferred method is selected, there are a range of alternative products to choose from, so how can you identify that one that best meets your needs?

THE CHALLENGE

As with any business purchasing decision, price will always be a factor, but selecting a product based on cost alone can have far-reaching, often expensive, and often unforeseen implications. With a drug testing program – the product selection also has potentially very substantial workplace health and safety consequences.

In the case of saliva detection devices, it is fair to say that not all products are created equal. There are a range of cheap devices on the market, but these solutions bring additional risk. Lower priced options are far more likely to deliver false results – both positive and negative. Recording false positives adds further burden to the process, as all non-negative results require additional confirmatory testing. This takes time, adds cost and can lead to unjustified suspension from duties for affected employees which then attracts undue negative stigma.

False negatives are even more concerning, as they are never verified. While additional testing is required in the event of a positive (or non-negative) reading, a false negative goes unchallenged. The upshot is that staff may be open to unidentified risk. This therefore directly compromises the overall intent of the testing process – to provide an adequately safe working environment – and opens the business up to the costs associated with safety breaches or incidents that are completely avoidable.

Companies utilising inferior solutions are also susceptible to reputational risk. If results reliability is not constant, and it is possible for an individual to fail one test and pass on another under the same conditions, it threatens to jeopardise the integrity of the entire program and the company's public image.

THE SOLUTION

Independent studies have shown the Securetec DrugWipe Saliva Detection Device from Pathtech is a superior option.

The Centre for Forensic Science Research & Education, based in the United States, conducted a laboratory-based evaluation of ten saliva testing devices, including the DrugWipe. The purpose of the study was to determine;

- › Sensitivity, specificity and accuracy of each device;
- › Individual performance at different concentration levels;
- › Compare positive result concentrations versus advertised cut-off concentrations

The study tested for a range of substances including; amphetamine/methamphetamine, cocaine, opiates, THC (cannabis) and benzodiazepines. The testing protocols used were developed based on the manufacturers' instructions for each of the tested devices and each device was tested in triplicate for each of the controls, under a blind analysis. Results were interpreted and recorded independently by two individuals and the data analysis parameters used were; a) true positives and negatives and; b) false positives and negatives.

For the purposes of the exercise, positive results were recorded as true positives if the substance was detected, irrespective of concentration. For negative results, the concentration was compared to the manufacturer's cut-off concentration then scored as a true or false negative.

Of the tested devices, only the DrugWipe recorded a zero result for both false positives and for false negatives. Additionally, it scored 100% for sensitivity, specificity and accuracy – no other device achieved this result.

The study's authors suggest that outcomes can be influenced by several factors including difficulty of use. Procedures that are lengthy or difficult to administer are more prone to error. Similarly, devices that do not offer suitable readability can negatively impact the process.

DrugWipe was recognised as having a 'best overall performance', outperforming rival products in the three key measurement criteria. The THC test strip on alternatives was also deemed to be problematic, which was not found to be the case with the DrugWipe device.

Independent studies aside, environmental factors can impact on the suitability of available choices. Australia is susceptible to extreme weather conditions, particularly in northern regions of the country. As eating and drinking is not permitted for ten minutes prior to screening, it can be difficult for those being tested to produce enough saliva to deliver a suitable sample in these conditions.

DrugWipe devices require only 10 microlitres of saliva for analysis, which is considerably less than some of the other available options. This means that sampling can easily be carried out in even the hottest environments.

DrugWipe is the roadside drug screening device of choice for all Police jurisdictions across Australia, so its reputation and reliability are undisputed. Once the commitment to providing a safe workplace has been made, it makes no sense to undermine the endeavour by using unreliable or inaccurate testing devices, which is why DrugWipe is increasingly the preferred option for many Australian companies and the number one selling device nationwide.

For further information on the DrugWipe device range and its suitability within your work environment, contact the Pathtech team via email drugwipe@pathtech.com.au or call 1800 069 161