POINT OF COLLECTION TESTING

OVERVIEW

What is a point of collection test?
A point of collection test (POCT) is a drug screening test performed outside of a certified laboratory. POCTs are conducted using a variety of devices designed for this purpose. Some POCT devices test for a single drug while others can be used to test for combinations of drugs.

POCT results are verified at the discretion of the employer who must choose to send the sample to a certified laboratory for confirmation testing.

What is a laboratory screening test?
Urine samples sent to a certified laboratory undergo an initial screening test for drugs (e.g., cocaine, marijuana and amphetamines) and specimen validity (e.g., to determine if the sample has been tampered with). Screening tests tend to be fairly specific and sensitive for the drug being analyzed. They can distinguish between different classes of drugs (e.g., cocaine and opiates), but may not be able to distinguish between drugs within a certain class (e.g., opiates such as codeine, morphine and heroin).

What is a laboratory confirmation test?
All screening tests conducted at certified laboratories are confirmed through gas chromatography/mass spectrometry (GC/MS). These confirmation tests can distinguish between different classes of drugs and between drugs within a certain class. They also tend to be more sensitive than screening tests, detecting lower levels of drugs.

Confirmation tests confirm the presence or absence of specific drugs, thereby preventing false accusations resulting from screening tests that produce false results.

What is chain of custody?
Chain of custody is the recording of who handles a sample and why from the time the sample is collected to the time the sample is discarded. Chain of custody documentation includes both the original sample and any portion of the sample that might be removed from the original container. The documentation provides a paper trail showing the collection, transfer, testing and the disposal of the sample. It also verifies the integrity of the sample.

Advantages of POCT
- Quick turn-around time on negative results.

Disadvantages of POCT
- Not all employers choose to request confirmation testing. Positive samples may not be confirmed and inappropriate action may be taken based on a screening test only.
- POCT does not currently meet standards set by the U.S. Department of Transportation (DOT), the recognized authority on drug testing in North America.
- POCT may not test for the same drugs at the same concentrations as the laboratory-based tests.
- POCT devices may not achieve acceptable performance.
• Storage conditions of the devices can influence the performance of the device.
• Most POCT devices currently in use require a subjective assessment of the result (e.g., the tester must decide if the test is negative or positive based on visual clues), while laboratory-based drug testing is objective.
• Staff may not be thoroughly trained for proper performance of device. This becomes more of a problem when people do testing infrequently.
• Lack of standard operating procedures.
• Lack of documentation of testing and quality control results. In a certified laboratory, the raw analytical data is available long after the sample is resulted. This is not the case in POCT since the majority of POCT results are visual and the result hand written. This also becomes an issue of accountability, since the tester decides what the result is going to be and may be influenced in their decision making by a variety of factors.
• Quality assurance is often non-existent.
• Lack of chain of custody.
• Specimen validity testing may not be conducted.
• Lack of knowledge in the interpretation of drug test results.

Conclusion

The two most important elements of drug testing are the outcome for the employee who is tested and the legal defensibility of that outcome. Any actions an employer takes as a result of a positive drug test must be based on accurate and defensible results that can stand up against stringent legal requirements and evolving case law.

For a POCT program to stand the test of defensibility, it must conform to the same stringent standards that are in place for certified laboratories. With the right resources and controls, it is possible that a POCT program can meet those stringent standards and overcome most of the disadvantages listed above.

However, to make the best choice for testing programs, employers should carefully consider their ability to ensure the legal defensibility of test results and any subsequent decisions and actions taken with tested employees.

(Summary prepared from a discussion paper by Penny Colbourne, PhD, Director, Substance Abuse Testing Laboratory – Dynacare Kasper Medical Laboratories)