K2 The Analysis of Workplace Urine Specimens From Federal Employees Reported as Rejected for Testing

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After attending this presentation, attendees will have a better understanding of the drug and validity characteristics of Federal employee urine specimens that were not tested & reported as Rejected for Testing.

This presentation will impact the forensic community and/or humanity informing the forensic community with objective data for Federal employee workplace urine drug testing specimens reported as Rejected for Testing at two SAMHSA certified laboratories and allow the re-evaluation of minimum drug testing volume requirements.

Introduction: Anecdotal comments infer that the incidence of drug positivity and/or unacceptable specimen validity in specimens that would be routinely reported as Rejected for Testing, mostly due to volume less than 30 mL, is considerably higher than in those specimens that had sufficient volume to routinely test. These anecdotes apply generally to workplace urine drug testing and also specifically to specimens tested under Federal authority.

Objective: To determine if Federal employee specimens that were reported as Rejected for Testing by SAMHSA certified laboratories provided similar drug positive, adulterated, invalid, or substituted (non-negative) results when compared to the results of other federally regulated specimens that were tested and reported over the same time frame in SAMHSA certified laboratories.

Methods: Specimens submitted through the Federal employee drug testing program and reported as Rejected for Testing were obtained from two SAMHSA certified laboratories, with no way to link the specimens to donors. The specimens (both A and B bottles, when available) were tested with a Microgenics MGC240 using Microgenics DRI (Cannabinoid Metabolites, Cocaine Metabolite, Phencyclidine, Opiates, Amphetamines), Microgenics Detect (Creatinine, pH) and Axiom (Oxidant) assays. Those specimens for which drug tests were presumptively positive by immunoassay and for which validity tests were not within the acceptable range as required in the Mandatory Guidelines (69 Fed. Reg. 19644, effective Nov. 1, 2004) were sent to a reference laboratory for confirmatory drug tests by GC/MS and necessary validity testing in accordance with those Mandatory Guidelines.

Results: Specimens from 478 donors that had been reported as Rejected for Testing from November 2004 through April 2006 with a volume of at least 5 mL were tested. Of these 478 donor specimens, 63 donors provided specimens with either presumptive drug positive results and/or unacceptable validity test results, including dilute. Of these 63 donor specimens, 11 donors provided drug negative dilute specimens that were not tested further for drugs below the Mandatory Guidelines cutoffs, 45 donors provided specimens having a single presumptive drug positive result or unacceptable validity test results. Confirmatory testing of these 45 specimens yielded the following results:

	AMP	BZE	OPI	PCP	THCA	ADULT	INV	SUBS	Total
Screened (+)	14	4	6	0	6	0	15	0	45
Confirmed	8	4	6	NA	6	NA	15	NA	39

Of these 63 donor specimens, seven donors provided specimens with multiple results: multiple presumptive drug positives, multiple unacceptable validity test results, or a combination of presumptive drug positive and unacceptable validity test results. Confirmatory testing of these seven specimens yielded the following results:

Positive Screening Test	ADULT/ INV	AMP/ BZE	AMP/ OPI	AMP/ THCA	BZE/ DIL	BZE/ THCA	OPI/ THCA
Confirmatory Test Results	pH too high	AMP MAMP	NEG AMP NEG MAMP	AMP MAMP	BZE	BZE	NEG MOR NEG COD
	Abnormal Creat&SpGr	BZE	COD MOR	THCA	DIL	THCA	THCA

Only 13 of the 478 specimens reported as Rejected for Testing were collected under Post-Accident or Reasonable Suspicion/Cause conditions. One of those 13 donors provided a dilute specimen.

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Specimens from three of these 13 donors (23.1%) provided drug positive results: two donors were positive for THCA, and one donor was positive for both BZE and THCA. Of the specimens provided by the 478 donors,
9.6 % (46) provided specimens with drug positive and/or unacceptable specimen validity results (not including the 11 dilute specimens) as compared to 2.2% of all Federal & federally regulated specimens tested and reported by all SAMHSA certified laboratories during the same time period that were also tested for drugs and specimen validity (not including dilute results).

Conclusions: Of the 478 specimens reported as Rejected for Testing, 353 were rejected for insufficient volume (< approximately 30mL), with only 18 of these 353 specimens having leaked in transit resulting in their insufficient volume. This suggests that the minimum volume requirement for specimen rejection may need to be re-evaluated.

Rejected Specimens, Federal Employees, Non-Negative Incidence

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