

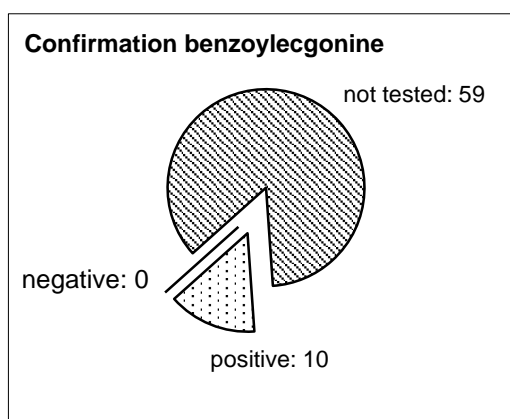
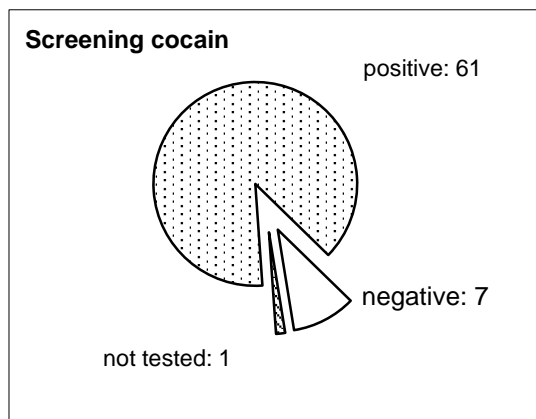
DOA Round 2016.2B

Casus: Urine sample of a visitor to a party.

Composition: urine spiked with benzoylecgonine 348 µg/l, (dex)amphetamine 1165 µg/l and MDMA 1156 µg/l.

Results:

Cocain: screening positive (>300 µg/l)					
Summary statistics:					
number of laboratories: 69					
screening:	pos.	neg.	not tested	FP*	FN*
	61=88%	7=10%	1=1%	0	7=10%
confirmation:	pos.	neg.	not tested		
benzoylecgonine	10=14%	0=0%	59=86%	0	0



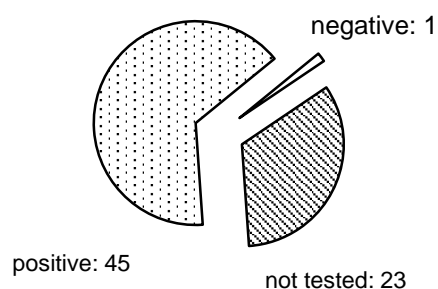
Amphetamines: screening positive (>1000 µg/l)

Summary statistics:

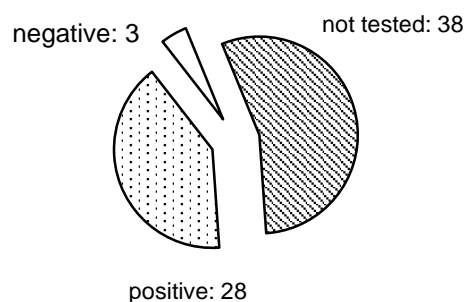
number of laboratories: 69

screening:	pos.	neg.	not tested	FP*	FN*
amphetamines & analogues	45=65%	1=1%	23=33%	0	1=2%
amphetamine	28=41%	3=4%	38=55%	0	3=10%
methylamphetamine	18=26%	7=10%	44=64%	0	0
MDMA	17=25%	3=4%	49=71%	0	3=15%
MDA	0=0%	0=0%	69=100%	0	0
MDEA	0=0%	0=0%	69=100%	0	0
confirmation:	pos.	neg.	not tested		
amphetamine	10=14%	2=3%	57=83%	0	2=17%
methylamphetamine	1=1%	5=7%	63=91%	1=17%	0
MDA	0=0%	5=7%	64=93%	0	0
MDMA	13=19%	0=0%	56=81%	0	0
MDEA	0=0%	5=7%	64=93%	0	0

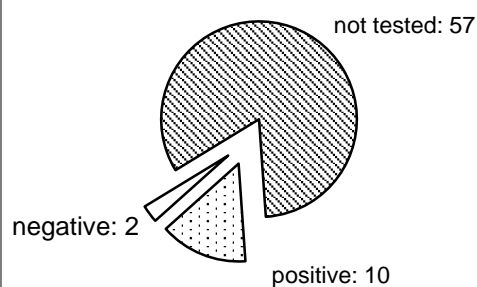
Screening amphetamines & analogues



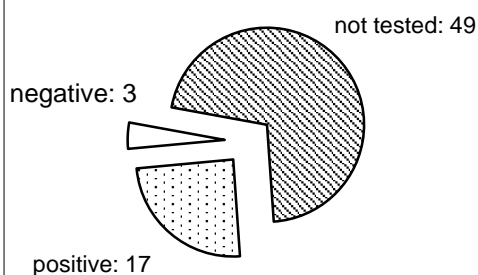
Screening amphetamine



Confirmation amphetamine



Screening MDMA



Discussion by drs. P.G.M. Zweipfenning:

This was (blanc) urine spiked with benzoylecgonine (BE) 348 µg/L, dexamphetamine 1165 µg/L and MDMA 1156 µg/L.

BE is higher than the highest cut-off value used. Still 7 labs report it as negative. Would the results of lab 77 be skipped (probably an exchange of sample, see above), then the mean value (345 µg/L, 100.6%) would be excellent and the VC (10.3%) very good for these kind of tests.

Amphetamines represent a group of substances with more or less similar structures. The antibodies in the tests are mostly against d-amphetamine (=dexamphetamine), d-methamphetamine and MDMA. Some tests use combinations of antibodies (e.g. Thermo-Scientific "amphetamines type CEDIA). When reporting results, it is important to be aware of the cross reactivity of the test (intentionally or unintentionally meant by the manufacturer). In this round 10 labs reported methamphetamine positive (on the basis of the Triage test. And 4 Labs reported negative on the basis of Triage (her type 6c). Are these positives in the context of determining drug use, then the subject will be unfairly be accused of poly drug use. Misunderstandings in a clinical setting are also possible. One should always be aware of the responsibility for the results of the tests used when reporting these. This including the conclusions a user of the results might come to. Whenever a manufacturer does not supply this information or incomplete, one should gather this information oneself. In my view client or patient would not get what they rightfully may expect. What further stands out is that the combined cross reactivity of amphetamine and MDMA results in much higher signals than the sum of d-amphetamine and MDMA (2300) in the amphetamine-group test.

In the conformational tests the mean value for quantitation amphetamine is good (mean 100%, VC 9% N=5) but for MDMA this is less (mean 73%, VC 27%, N=7).