

DOA Round 2015.3A

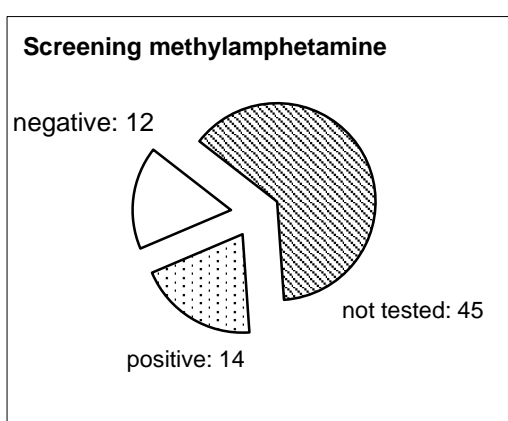
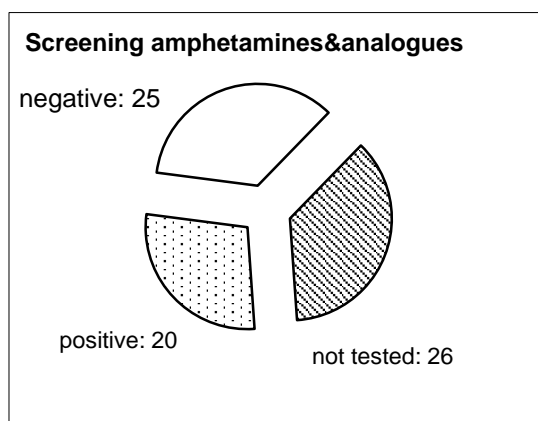
Casus:

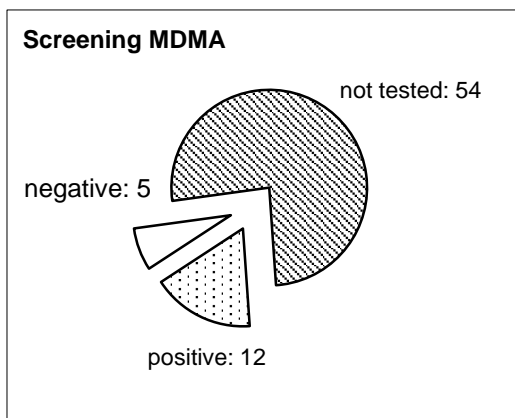
Sample send to your lab for routine drug testing

Composition: urine spiked with MDMA 1127µg/, nitrazepam 112 µg/l en ethanol 0,567 g/l

Results:

Amphetamines: screening positive (>1000 µg/l)					
Summary statistics:					
number of laboratories: 71					
screening:	pos.	neg.	not tested	FP*	FN*
amphetamines&analogues	20=28%	25=35%	26=37%	0	25=56%
amphetamine	3=4%	28=39%	40=56%	0	0
methylamphetamine	14=20%	12=17%	45=63%	0	0
MDMA	12=17%	5=7%	54=76%	0	5=29%
MDA	0=0%	0=0%	71=100%	0	0
MDEA	0=0%	0=0%	71=100%	0	0
confirmation:	pos.	neg.	not tested		
amphetamine	0=0%	6=8%	65=92%	0	0
methylamphetamine	0=0%	6=8%	65=92%	0	0
MDA	1=1%	5=7%	65=92%	1=17%	0
MDMA	10=14%	0=0%	61=86%	0	0
MDEA	0=0%	5=7%	66=93%	0	0



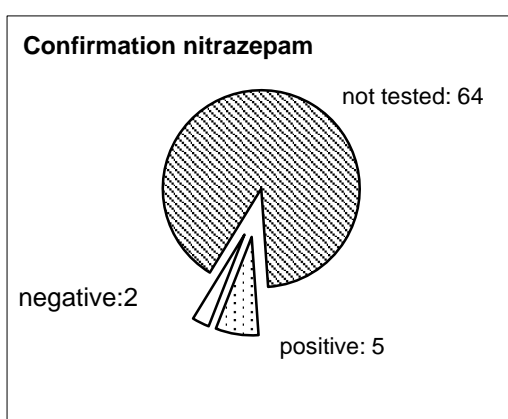
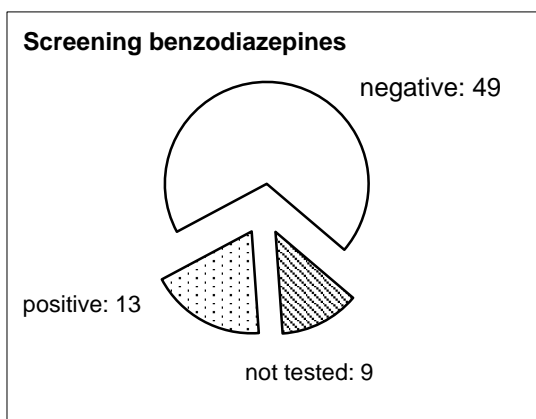


Benzodiazepines: screening negative (<300 µg/l), confirmation positive (>100µg/l)

Summary statistics:

number of laboratories: 71

screening:	pos.	neg.	not tested	FP*	FN*
	13=18%	49=69%	9=13%	0	0
confirmation:	pos.	neg.	not tested		
	5=7%	2=3%	64=90%	0	2=29%

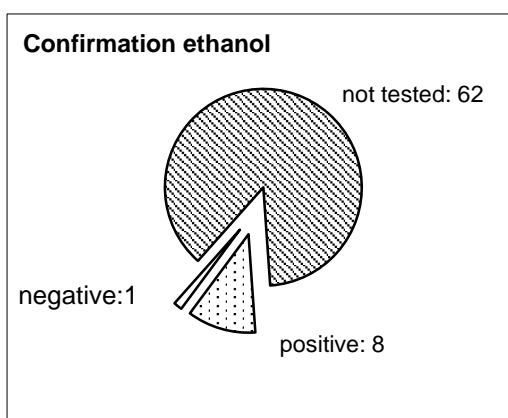
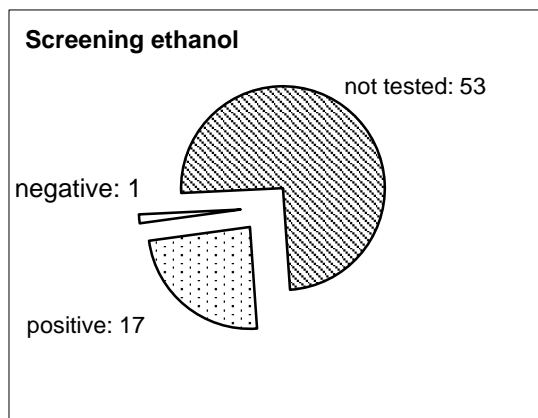


Ethanol: screening positive (>0,1 g/l)

Summary statistics:

number of laboratories: 71

screening:	pos.	neg.	not tested	FP*	FN*
	17=24%	1=1%	53=75%	0	1=6%
confirmation:	pos.	neg.	not tested		
	8=11%	1=1%	62=87%	0	1=11%



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

This was blanc urine spiked with MDMA 1127 µg/L, nitrazepam, 112 µg/L and ethanol 0,567 g/L.

Here the problems with immuno assays in relation to **MDMA** are striking:

The score "amphetamines and analogues" 20x/71 positive (28%) is in order. Amphetamine only 3x positive, but with a more specific anti-body, is logical. Methamphetamine 14x/71 positive would not be O.K. if this is reported as such. MDMA 12x/71 positive is disappointing. But the percentage relates to the total number of participants, not the number of labs that did a selective test for MDMA. Worse is that 5 labs that reportedly had performed a more specific screening test for MDMA, reported negative.

It is the responsibility of every lab to evaluate whether their report is correct within the possibilities of the screening technique(s) used.

Nitrazepam is a low dosed benzodiazepine. Screening for benzodiazepines resulted in 13 positive and 49 negative reports. In a standard DOA setting negative is correct because the cut-off is 200 µg/L. However in a clinical setting a positive answer could be appreciated.

Ethanol, 53 labs (75%) does not screen for it, 62 (87%) neither in a confirmation. Only one lab reports screening and confirmation. GC can of course be used as a technique for screening as well as confirmation. Quantification via an enzyme test as well as via GC went quite well. Enzymatic scores a fraction higher. Only lab nr. 3104 reports 0,8 g/L (140%). Out of 71 participants 46 (65%) do not report about ethanol at all.