

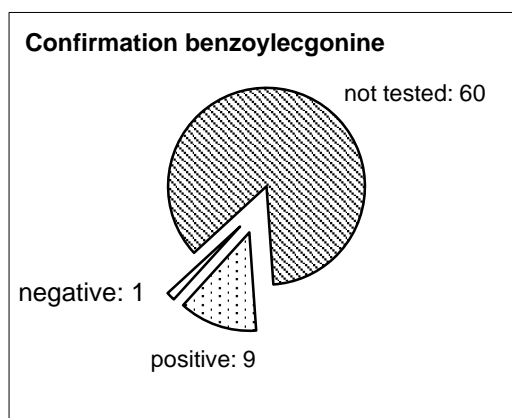
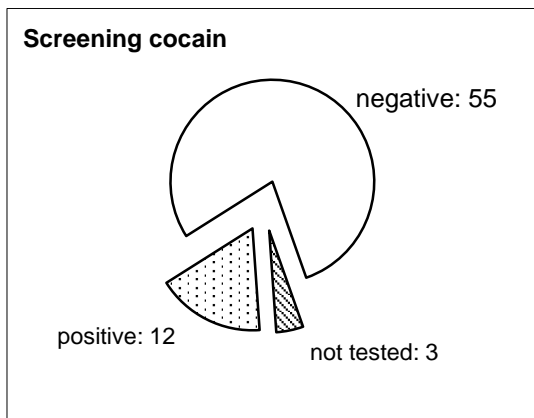
## DOA Round 2016.2A

**Casus:** Urine sample from a job applicant.

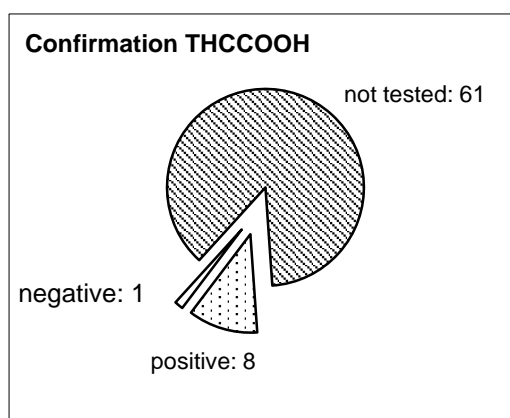
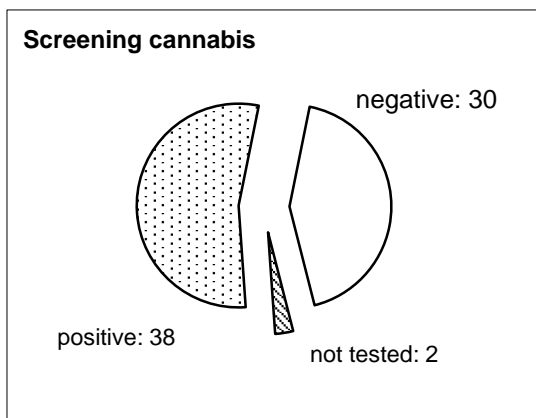
**Composition:** urine spiked with benzoylecgonine 174 µg/l, THCCOOH 60 µg/l and ethylglucuronide 983 µg/l.

Results:

Cocain: screening negative (<300 µg/l), confirmation positive (>150 µg/l)					
Summary statistics:					
number of laboratories: 70					
screening:	pos.	neg.	not tested	FP*	FN*
	12=17%	55=79%	3=4%	0	0
confirmation:	pos.	neg.	not tested		
benzoylecgonine	9=13%	1=1%	60=86%	0	1=10%



Cannabinoids: screening positive (>50 µg/l)					
Summary statistics:					
number of laboratories: 70					
screening:	pos.	neg.	not tested	FP*	FN*
	38=54%	30=43%	2=3%	0	30=44%
confirmation:	pos.	neg.	not tested		
	8=11%	1=1%	61=87%	0	1=11%

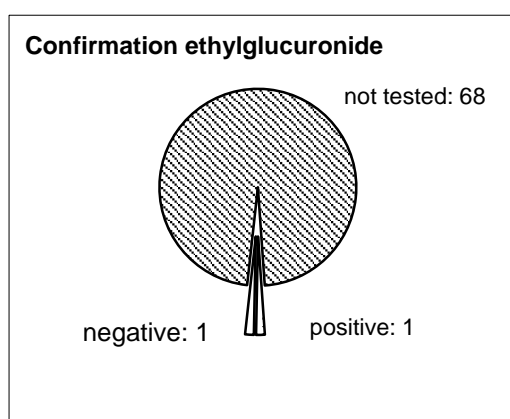
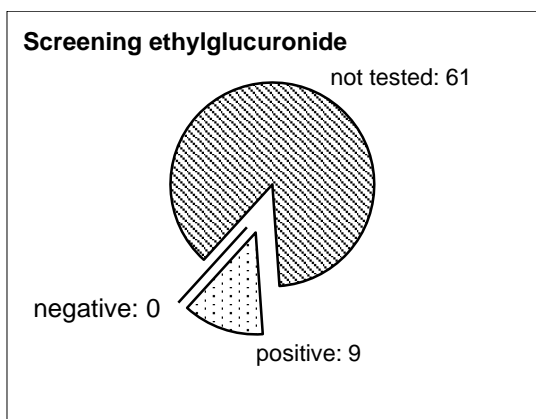


**Ethanol: screening negative (<0,1 g/l), ethylglucuronide positive (>500 µg/l)**

**Summary statistics:**

**number of laboratories: 70**

screening:	pos.	neg.	not tested	FP*	FN*
ethanol	0=0%	19=27%	51=73%	0	0
ethylglucuronide	9=13%	0=0%	61=87%	0	0
confirmation:	pos.	neg.	not tested		
ethanol	2=3%	9=13%	59=84%	2=18%	0
ethylglucuronide	1=1%	1=1%	68=97%	0	1=50%



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

This was blanc urine spiked with benzoylecgonine (BE) 174 µg/L, THCCOOH 60 µg/L and ethylglucuronide (EtG) 983 µg/L.

B.E.: Related to the most commonly used cut-off value of 300 µg/L most of the labs reported negative. In the new European guidelines this cut-off is lowered to 150 µg/L without given motivation (at least I do not know it). With the exception of lab nr. 77 (that scores very high) all labs will have to check weather according to their cut-off or the cut-off the method they used, is correctly reported positive or negative.

With THCCOOH lab nr. 77 scores very low also. 60 µg/L would have to be reported positive with any cut-off of 50 and lower. The mean value of all quantitative tests is 46 µg/L. with a SD of 15 (= VC of 33%). This low mean value could (also) have been related to the (published) low stability of cannabis in urine samples.

EtG: Only 8 participants reported EtG (& screening results and 1 direct confirmation). The mean value of 1003 µg/L (103%) is excellent, as is the VC (8%).

Lab 77 scored significantly positive for amphetamine(s). All signals together point in the direction of a confusion about sample identity. So, not only technique is determining a correct result. No analytical result is as good as the administrative procedures of a lab.