

FIRST EVALUATION OF A SAMPLING STRATEGY ALLOWING FOR A QUICK SCREENING AND PRESERVATION OF SEXUAL ASSAULT EVIDENCE

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Screening for male contribution in sexual assault evidence is a laborious and time-consuming process. This can be a real issue, particularly when laboratories are asked to provide information quickly to guide judicial decisions allowing for notice of initiation for further analysis where interested parties were given the opportunity to take part in the analysis flow.

Sampling without really compromising the evidence for further analysis is a suitable solution for the legal framework.

Direct amplification is a suitable solution to speed up screening of sexual assault evidence and for reduce reagent costs and work time.

After evidence exam with forensic light sources and immunochromatographic tests for sperm made on suspect luminescence on the clothes and on SAK (Sexual Assault Kit) evidence from the victim, we proceed with two strategies:

- 1) Micro-sampling with COPAN 4N6FLOQSwabs™ Subungual Shape on the clothes and on the SAK swabs, DNA extraction, quantification, PCR and CE.
- 2) Micro-sampling with COPAN microFLOQ® direct and subsequent direct amplification with multiplex for autosomal STR and Y-STR

Preliminary results show that is possible to detect male contribution with this screening approach and at the same time to preserve evidence for further analysis (even differential extraction on the positively screened samples).

We present data from real DNA evidence related to a sexual assault casework.

Key Words: swabs, direct amplification, sexual assault.