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European Workplace Drug Testing Society

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# European Guidelines for Workplace Drug Testing in Hair

Alberto Salomone

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[www.ewdts.org](http://www.ewdts.org)

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## Perspective

Drug Testing  
and Analysis

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# Guidelines for European workplace drug and alcohol testing in hair

Ronald Agius<sup>a\*</sup> and Pascal Kintz<sup>b</sup>

Alberto Salomone (Italy), Markus Baumgartner (Switzerland)  
Lolita Tsanaclis (UK/Brazil), Pascal Kintz (France), Ronald Agius  
(Germany)

**SCOPE:** establish best practice procedures whilst allowing countries to operate within the requirements of national custom and legislation

# MAJOR CHANGES

- Alcohol section was modified, according to the SoHT Consensus
- Cut-offs for methadone and ketamine were added
- The possibility of testing for NPS was mentioned
- Instructions for challenging the results (paragraph 8) were provided
- Appendix B was added

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- Appendix A: Example of a collection instructions
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- **To provide a common framework within which WDT in hair should be performed.**
- **To provide guidance in order to provide reliable results for the purpose of WDT.**
- **To ensure that the processes undertaken are capable of legal scrutiny.**
- **To provide safeguards to protect the specimen donors.**
- **To define common quality assurance and quality control criteria**

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**Contains recommendations to ensure a balance between the privacy of the donor and the need to ensure the proper identification and integrity of the specimen**

- 2.1 Introduction**
- 2.2 Collector Qualifications**
- 2.3 Collection Site**
- 2.4 Chain of Custody Form (CCF)**
- 2.5 Collection Process**

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- **Laboratories should ideally be accredited to ISO/IEC 17025**
- **Laboratories should be sufficiently equipped (GC-MS, LC-MS and Tandem MS technologies)**
- **Adequate sampling, collection and storage should still be performed at a local level to ensure that the results produced by the regional laboratories are accurate and valid**

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**Contains recommendations about: minimum amount of hair used in the analysis, washing procedure, sample pretreatment, validated extraction protocol, screening and confirmation analyses**

#### **4.1 Sample receipt**

#### **4.2 Sample decontamination and extraction**

#### **4.3 Sample Analysis**



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### **Screening test**

**Since the majority of the samples tested for WDT are negative and hence will only be screened, high quality screening tests are a must for WDT**

### **Confirmation test**

**National or European guidelines for mass spectrometric identification and quantification of drugs must be taken into account**

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	<b>7.4</b>	<b>Reporting the Results</b>

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- **The residue of the original sample, or the B sample when available, are re-tested**
  - **Same laboratory or by a different laboratory accredited and working according to these guidelines**
  - **The donor can attend the new analyses or be represented.**
  - **The final report: no drug found, or found at a level that is either consistent or inconsistent with the first one**
  - **The final interpretation of the results is done by a Medical Review Officer, together with a toxicologist**

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## Drug and Alcohol Testing in Hair, Collection and Analysis

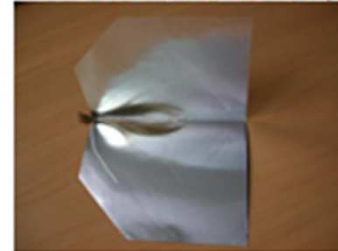
### Appendix A – Example of a collection Instructions for Hair



A lock of hair about the width of a thin pencil, or several locks of hair are cut from the back of the head.



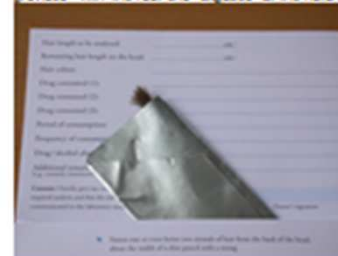
The hair is to be cut just above the skin, as close to the scalp as possible.



The hair lock(s) are put in separate aluminum foils provided, with the root end exposed at the notched end.



Each aluminum foil is to be folded once as shown above.



Insert the aluminum foil into the envelope provided. Seal the envelope.



Fill in the donor's particulars and required test. The donor should sign the declaration. Both hair samples shall be sent to the laboratory in an envelope by post or by courier.

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	Screening ng/mg	Confirmation ng/mg
Alcohol	-	EtG: 0.03 FAEE: 0.5
Amphetamines	0.2	0.2
Cocaine	0.5	0.5
Benzoyllecgonine	-	0.05
Cocaethylene	-	0.05
Norcocaine	-	0.05
Cannabinoids		
THC	0.05	0.05
THC-COOH	-	0.0002
Opiates	0.2	
Morphine		0.2
Codeine		0.2
6-MAM		0.2
Methadone	0.2	0.2
EDDP		0.05
Buprenorphine	0.01	0.01
Norbuprenorphine		0.01
Ketamine	0.5	0.5
Norketamine		0.1
Benzodiazepines	0.05	0.05

Thank you  
for your  
attention

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