

## Solano County District Attorney

Bureau of Forensic Services

# PHYSICAL EVIDENCE BULLETIN

WITHDRAWAL, HANDLING, AND PRESERVATION OF BLOOD SAMPLES FOR FORENSIC TOXICOLOGY ANALYSIS

PEB 4: Revision 1.0

**Document ID:** EV-1.04 **Approval:** Laboratory Director

**Standard:** 4.1-4.4.5, 5.7.1-5.7.3, 5.8.1-5.8.4

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Category: Evidence Type: Administrative Effective Date: 09/27/2011

### INTRODUCTION

Blood is the preferred biological specimen for determining possible impairment. However, urine may be a more suitable specimen for some drugs that are not well detected in blood due to low concentration and a short half-life. The presence of a drug in a blood sample suggests that the drug may be the cause of an observed impairment. However, there is no well-established correlation between blood concentration and impairment for any drug other than alcohol. Blood toxicology results may be reported qualitatively or quantitatively. As with the handling of all biological specimens, certain precautions must be taken. Blood sample collection kits are provided by the laboratory.

### SAMPLING, COLLECTING, PRESERVING, AND MARKING

The following summarizes the important considerations in the collection and preservation of blood samples for toxicology analysis:

- 1. Collect blood sample by venipuncture into vacuum vial (tube) provided as soon as feasible after the alleged offense. Person collecting sample must be a licensed physician, registered nurse, phlebotomist, or paramedic.
- 2. The area to be punctured must be cleaned with a nonvolatile and non-alcoholic disinfectant.
- 3. All fields on the label provided must be filled out and placed on the vial. It is important to carefully note the date and time on sample label and sample envelope.
- 4. The recommended minimum quantity of blood sample required to perform toxicology analysis and still provide sufficient quantity for referee analysis by the defendant is 5 cc or 5 mL. The vial provided in the kit holds a volume of 10 mL. If the recommended minimum is not reached, a small amount of blood collected may be sufficient for toxicology analysis and should be forwarded to the laboratory.
- 5. A member of the police agency, preferably the arresting officer, should supervise the collection of the sample so there will be no question as to the source.

#### PACKAGING

Maintenance of identity and integrity of the sample shall include the following procedures:

- 1. The label for the blood vial or tube shall contain at least the following information:
  - a. Full name of subject.
  - b. Date blood drawn.
  - c. Initials of person drawing blood.
  - d. Initials of witnessing officer.
- SUBJECT'S NAME

  INITIALS OF PERSON
  DRAWING OF BLOOD/OR WITNESS TO URINE

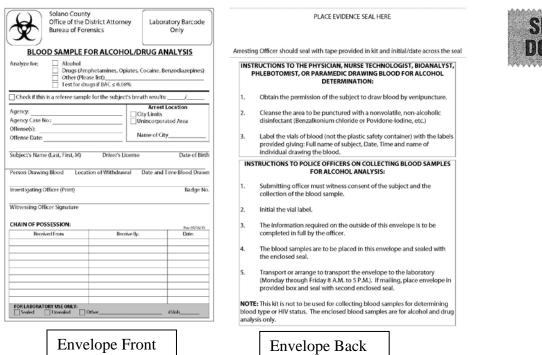
  DATE

  WITNESSING OFFICER
- 2. The blood sample tube or vial shall be sealed in a blood alcohol/drug envelope.
  - a. The blood sample envelope label shall include at least the following information:

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- (1) Full name of subject.
- (2) Submitting agency.
- (3) Geographical location where blood sample was drawn; i.e., name and/or address of hospital, jail or other facility.
- (4) Name of person drawing blood sample.
- (5) Date blood sample drawn.
- (6) Time blood sample drawn.
- (7) Signature of witnessing officer.
- (8) A form for establishing the chain of possession for all persons handling the evidence.
- b. Other information such as agency or laboratory number, driver's license, offense charged, anatomical location from which blood sample was drawn, or any special instructions may be added.

Blood alcohol kits including vials, envelopes and labels are available on request.



# SECURITY SEAL DO NOT TAMPER

Security Seal

### PROCEDURES FOR OBTAINING BLOOD SAMPLES

1. The requesting officer should witness the withdrawal of the sample. When the officer witnesses the actual withdrawal of the blood, it may preclude the person drawing the blood from appearing as a witness at the time of the trial.

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- 2. The person drawing the blood (e.g., nurse, doctor, paramedic) shall fill out and initial the label and affix it firmly to the tube or vial. The sample shall then be given to the officer who, in turn, shall initial the label and place the sample in the prescribed envelope. The officer shall immediately complete the required information on the envelope label and seal securely.
- 3. Appropriate steps to ensure integrity of sample shall be taken:
  - a. Once the envelope or other container is sealed, it must not be opened except for analysis in the laboratory.
  - b. Each person having possession of the sealed samples shall sign his name in the space provided for recording the "chain of possession".

### POST MORTEM SAMPLES

The laboratory does not analyze post mortem samples.

### **ANALYSIS**

Samples will be screened for common drugs of abuse. Positive screening tests will be followed by confirmation analysis. Confirmation analysis will also be performed for the presence of requested drugs that are not commonly screened for. Absent a request for a specific analyte of interest, negative screening results will not be forwarded for confirmation analysis.

### **RE-EXAMINATION**

The laboratory does not routinely examine materials that have been previously examined by another laboratory. Re-examination requests must be made in writing by the submitting agency with an endorsement by the prosecuting attorney having jurisdiction in the case.

### **EVIDENCE DISPOSITION**

Blood samples submitted for analysis will be retained for one year at which time it will be returned to the submitting agency.

The laboratory will not be responsible for destruction of evidence.

For further information on collection of blood for forensic drug analysis contact the laboratory directly.

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