



## Blood samples in hospital for unconscious/incapacitated patients

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### General comments

- All blood and urine samples in hospital should be taken using the appropriate forensic kit:
  - RTA Blood kit
  - RTA Urine kit
  - Blood Toxicology kit
  - Urine Toxicology kit
- Staff should be competent in venepuncture and have been trained to use the appropriate kits (as above) and complete the associated paperwork, e.g. HO/RT 5 or *Pro forma – Forensic Medical Examination Form*, or equivalent.
- The procedure should be explained to the treating team, prior to commencement as part of the consent process from the treating physician, and responsibilities agreed.
- The procedure should be fully documented.
- HCPs should be aware that there are potential problems with the reliability of samples taken from an existing line, such as contamination from drugs or fluids, and higher alcohol levels in arterial blood versus venous blood during the absorption phase of alcohol. While there is currently no legal precedent clarifying whether such samples would be deemed unreliable in court, HCPs should be mindful of the potential risk involved.

### Further reading:

#### *Taking blood specimens from incapacitated drivers*

Guidance for doctors from the British Medical Association and the Faculty of Forensic & Legal Medicine, April 2023

#### *Consent from patients who may have been seriously assaulted*

Faculty of Forensic & Legal Medicine, August 2022

#### *Forensic Science Regulator (2020) Guidance Section 5A Road Traffic Act 1988 Use of Limits FSR-G-221 Issue 3*

### Frequently Asked Questions

#### 1. From where should the blood sample be taken?

Ideally the blood sample should be taken from a vein which has no existing intravenous line, usually the antecubital fossa.

#### 2. Can a blood sample be taken from a line already in situ?

It is acceptable to take blood from a cannula, central, or arterial line if no other site is available. Document the specific site in your notes and whether the blood is venous or arterial.

#### 3. Can the ITU staff take the sample?

The ITU staff may assist in obtaining the sample from an existing line. This should be witnessed by the attending HCP who should exhibit the sample.

#### 4. Can the Forensic HCP take the sample from a line already in place?

The HCP may take the sample from a line already in place with the permission of the treating physician. However, care must be taken when using a line that is currently required for treatment of a seriously ill patient.

#### 5. How much blood should be drawn back prior to obtaining an evidential sample from a line that has been used to provide fluids and/or drugs?

5-10 mls

#### 6. Should the Forensic HCP document what has been given through a line that they intend to use to take a blood sample?

Yes – there should be documentation with regard to both the fluids given and any drugs, if known.

#### 7. Should the port be cleaned prior to taking a blood sample?

Yes - using the swab as in the appropriate forensic kit (non-alcohol wipe).

#### 8. What steps should be taken to avoid infection into line?

Universal precautions – wash hands, wear gloves, etc. Advice may be sought from the treating clinical staff.

#### 9. What steps should be taken to avoid cross contamination?

Not relevant as this is a sample for toxicology.



### 10. Who is responsible for flushing the lines post-sample?

The procedure should be explained to the treating team prior to commencement and responsibilities agreed.

### 11. Should there be documentation in the patient's notes that a Forensic HCP has attended and taken a sample of blood for evidential purposes?

This is the responsibility of the treating hospital team, but the Forensic HCP should recommend (see under general comments above re. explanation of procedure) that a record is made in the hospital clinical notes of the date, time, and site of the blood sample, by whom and for whom (Constabulary or Police Service).

### 12. Who should take a urine sample?

This is the responsibility of the police officer on site and should not involve the Forensic HCP. The police may ask for assistance from the Forensic HCP or the hospital treating staff.

### 13. If the patient is catheterised what is the procedure for taking a urine sample?<sup>1</sup>

A urine sample may be required for toxicology (not for samples under the RTA for unconscious/incapacitated patients) in which case a sample could be taken from the catheter bag. A urine sample only gives an indication of drugs that have been in the body and cannot be used for impairment/legal limits. The procedure should be done under the supervision of hospital staff so that the accurate hourly measurement of urine output is not compromised by the forensic procedure.

## References

1. For advice on taking urine samples from a catheter from a conscious consenting patient for RTA purposes see [Ryder v Crown Prosecution Service \[2011\] EWHC 4003 \(Admin\)](#) 14 April 2011