Faculty of Forensic & Legal Medicine

# Forensic Science Sub-Committee

# NEWSLETTER January 2018

This month sees the publication of the updated 'Recommendations for the collection of forensic specimens'. The FSSC meets every six months to review and revise the recommendations as appropriate.

The Committee also considers questions sent in by members of the FFLM and other interested parties. Here are the questions with answers from the past year.

### 1. Is unsupervised swabbing an appropriate alternative to a full examination?

The committee agreed that if the examinee would only consent to self-swabbing it was better than no examination at all. However the clinician should clearly outline the pros and cons of a full examination to the examinee first. It was also highlighted that it should be clearly documented and ideally the clinician would witness the sample/s being taken. It was agreed that the Recommendations should be updated to reflect this.

### 2. Is there a standardised agreement as to how/ who should label samples?

The committee advised that it was not critical who labelled the sample/s as long as the person exhibiting the sample/s checked that the labels were correct.

See *FFLM Labelling forensic samples (2016)*

### 3. The use of a proctoscope instead of a speculum was challenged at a recent training event. Is there any change to the use of a proctoscope for vaginal sampling?

The committee advised that the use of the right scope was a matter of clinical judgment and whichever was used should be clearly documented.

### 4. Is there guidance regarding the cleaning of the external genital region after sampling and before blind vaginal swabbing to demonstrate efforts have been made to minimise contamination from the external genitalia onto internal swabs?

The committee advised that cleaning was not recommended during training and that the area would only be cleaned first if there was very heavy staining.

### 5. How often do paediatricians suggest that small children are anaesthetised for intimate forensic samples to be taken?

The committee advised it was not routinely suggested and that small children would only be anaesthetised when there was a clinical justification e.g. other injuries.

### 6. Why is a moistened swab recommended for the anal canal when the recommendation for sampling the low vagina is to use dry swabs?

The committee advised that a moistened swab was recommended as it was not a naturally moist area. It was also highlighted that a moistened swab may be required for the low vagina if the area was markedly dry so it was also a matter of judgement.

### 7. Should a dry and moist swab be used for low and high vaginal swabs in cases with a male to female transgender complainant?

It was highlighted that the Recommendations state that if the vaginal mucosa is dry, the first swab can be moistened and with regards to the high vaginal swabs, the speculum would be lubricated. If it was not possible to pass a speculum and blind swabs were required it would be a matter of judgement for the clinician.

### 8. If a venous blood sample cannot be obtained is there any guidance on withdrawing blood from central/arterial lines and how much should be drawn back before taking the sample?

The committee discussed and agreed that if a venous blood sample could not be obtained, a sample could be taken from an arterial line by an ITU nurse witnessed by the clinician.

See *FFLM Blood samples in hospital for unconscious/ incapacitated patients (2017)*

### 9. Is there evidence supporting why vaginal samples are taken up to three days after anal rape rather than up to seven days?

The committee discussed and advised that there was not much to be gained taking the sample after three days.

### 10. In a female alleging anal intercourse only, are vulval swabs positive at lower levels than the anal swabs and positive because of contamination perhaps from underpants/wiping etc.? If semen is found on the vulval swabs, are lower levels found on the higher vaginal swabs? Have there been any positive results that could also have come from recent consensual vaginal sex with a partner where the levels are so low on the vaginal swabs that a full DNA profile cannot be obtained?

The committee discussed and advised that it was variable and dependent on the case. In the UK, the practise of taking vaginal swabs in suspected anal intercourse cases is to refute any allegations that may be made at a later date.

The committee discussed the difficulties in deciding what samples should be taken as the samples are taken on the basis of the account given by the complainant. At the stage the samples are taken, it is not known what account the assailant may give. It was highlighted that on the first page of the Recommendations, clinicians are advised to consider what samples are required on a case by case basis.

### 11. If a female attends a forensic physician with a tampon in place, when would it be removed, prior to or after swabbing the external/lower internal vagina? And if they report the offence with a tampon in and tell the police this, should police be recovering the tampon prior to the examination or should the HCP be removing it during the examination?

It was advised that ideally the tampon should be removed in the appropriate sequence of swab taking, i.e. after the low vaginal swabs and before the high vaginal swabs. It was added that if there had been a number of tampon changes since the incident, it would not make a difference as to when in the process it was removed. It was essential that clinicians documented what was done and when.

### 12. In relation to female perpetrators of sexual assault, where should the intimate female examination take place? Is it appropriate to take vaginal swabs in a police station where custody HCPs are not appropriately trained?

This question raised a number of issues and a new guidance document has been created to address them.

See *FFLM Recommendations for the examination of female suspects of sexual assault (2018)*

### 13. Should samples be taken five/six days after penile penetration but non ejaculation?

The committee advised that samples should be taken as there might still be traces of semen.

### 14. Is there guidance about fluid intake prior to taking a blood or urine sample?

A glass or two of water would not make much difference to the levels of drink/drug in the urine. The concentration of drink/drug would depend on other factors such as how hydrated the individual was. However if an individual was drinking litres of water then that would be an issue.

### 15. Is UV light useful as a tool to check for contamination in examination suites?

The committee advised that UV lighting was not an appropriate tool as it would not fluoresce all DNA sources and would fluoresce items without DNA.

There is further information on the FSR website in *Laboratory DNA: anti-contamination guidance*.

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Send any feedback and comments to forensic.medicine@fflm.ac.uk