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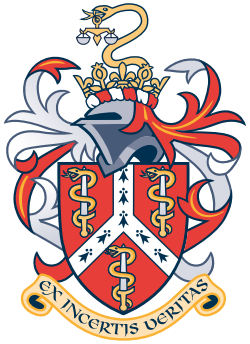

Faculty of Forensic & Legal Medicine

Recommendations for the collection of forensic specimens from complainants and suspects

Jan 2018 Review date Jul 2018 – check www.fflm.ac.uk for latest update

Instructions for use – PLEASE READ BEFORE REFERRING TO TABLE

- In this document the words complainant, subject, detainee, suspect, and patient will be referred to as examinee, unless a distinction between detainee and complainant needs to be made.
- Forensic specimens should be taken as soon as practicable (for complainants see Relevant Flowchart 'Sexual Offences Post-pubertal and Pre-pubertal'). The timescales stated are based on the maximum seen in published persistence data to date. However the examining clinician/person must make a decision on a case-by-case basis, as exceptions are possible; for example, if the examinee has been bed-bound or has not washed since the incident. Information from other sources will inform the decision regarding which samples are relevant. Officers submitting samples may have further information regarding the circumstances which will direct the forensic strategy and assist with decisions regarding the relevance and submission of items for forensic analysis.
- Double, non-sterile gloves must be worn throughout the sampling process and when handling specimens (including exhibit bags) in order to minimise DNA transfer and contamination. Change outer gloves when sampling different body areas. Unless specified below, retain and exhibit gloves only if there is obvious material on them. Everyone involved in the process (i.e. preparing the sampling kit prior to use, the specimens when taken and exhibit bags) should wear double gloves.
- Best practice would always be for a clinician to take intimate samples but if the complainant/complainer will only consent to taking self-swabs, s/he must wear double gloves & be advised how the sample should be taken; the forensic practitioner should witness the sample being taken if the examinee agrees. It must be made clear on the FME/FSP forms what was done and by whom. Retain the outer gloves used during this component of the examination and package in separate tamper-evident bag. These samples remain the practitioner's exhibits.
- Retention of water vials or moist control swabs is not necessary, but in their absence, the module batch number, expiry date and supplier should be recorded, if available.
- Where a moistened swab is required, drip 3 or 4 drops of water on to a swab. Care must be taken not to over-moisten the swabs used for sampling; all the water should be absorbed by the swab head, rather than the swab head be so wet that it will drip.
- Clothing should be taken as per local policy.
- Several commercial lubricants are available including Aquagel, KY Jelly, Gelcat, Pedicat; specify the lubricant used on the FME form.
- Where the order of sampling is given, it is very important that it is followed, and if for any reason it is not, then this must be clarified on the associated documentation e.g. exhibit list, or forensic medical examination (FME) form (available at http://www.fflm.ac.uk/publications/pro-forma-forensic-medical-examination-forms-2/).
- Reasonable steps to minimise contamination must be taken.
- When a urine sample is obtained, if the examinee uses toilet tissue (which may be provided in the kit) to wipe afterwards, this should also be retained and exhibited separately to the urine sample itself; as it is a biological sample, it is stored frozen and not sent for toxicology.
- Consideration should be given to the double-swabbing of or around body piercing sites, where relevant.
- Swabs with wooden shafts must not be introduced into any orifice.
- For guidance on labelling forensic samples, please refer to FFLM's Recommendations – Labelling Forensic Samples
- For information on the required performance and manufacture of consumables used in the collection, preservation and processing of material for forensic analysis, please refer to the British Standards Institute's PAS 377, available from http://goo.gl/FPz7xv
- Record the batch number on the forensic medical examination form for each module used, in addition to the kit module expiry date.
- It is recommended the associated documents e.g. FME forms, are exhibited once completed to ensure the forensic scientist has all the relevant information when analysing the samples.

NB clinicians: Forensic samples are only one consideration in deciding upon the merits of undertaking a medical examination. Opportunities to recover other forensic evidence, such as presence of injuries and their sequelae, as well as an evaluation of therapeutic issues for the examinee must be considered. Although the guidelines refer to specific timespans, it should be appreciated that this will vary on a case-by-case basis where discussion may be beneficial.

Recommendations for the collection of forensic specimens from complainants and suspects

SAMPLE TYPE	REASON FOR ANALYSIS	METHOD OF SAMPLING	PACKAGING AND STORAGE
Hands	Recovery of body fluids, cellular material, lubricant and other visible trace evidence, (e.g. soil). Limited data on persistence. Obtain if incident has occurred within the preceding 2 days (48 hours). However, if the examinee has not washed, then sample the relevant area of skin up to 7 days (168 hours) (inclusive) post incident.	Using moderate pressure, roll a moistened swab over each hand covering the front and the back including all fingers and web areas. Roll second dry swab over the whole hand; ensure separate moistened swabs are taken of any finger or fingers believed to have been used in the alleged offence being investigated. Where individual finger(s) have obvious evidence on them, consider sampling and exhibiting separately using the moist/dry technique.	Plain swab. Place immediately in swab sleeve/tube and then in tamper-evident bag. **Freeze**
Fingernails **For Toxicology see page 7**	Recovery of body fluid/DNA/other material within 48 hours or comparison with fingernail(s) broken at scene (if the circumstances suggest this as a possibility).	**Fingernail collection kit and Swab collection kit (water and swabs) if not in the fingernail kit** Swab under the fingernails, on the surface of the nails and around the cuticles. The first swab should be moistened, the second dry. If comparison with fragment nail is required, broken nail must be cut, and sent separately and unbroken if possible. Clip the fingernails only if visible material is seen. Take hand swabs as above in all cases where fingernails are swabbed.	Place in tamper-evident bag. Include any clippers used to sample fingernails in the bag with the clippings. **Freeze**
Swabs from the lips of the mouth & around its opening (peri-oral)	Recovery of semen if oral penetration within 2 days (48 hours). ***First mouth sample***	**Mouth collection kit** Using moderate pressure roll a moistened swab over the external (darker pigmented area of the lips) part of the lips, including the junction of the lip and the skin of the face (vermillion border), immediately roll a second dry swab, over the same area.	Plain swab. Place immediately in swab sheath/tube and then in a tamper-evident bag. **Freeze**
Mouth swab(s) (1 or 2) Note: Some kits may contain only 1 swab; in some kits no control swab is provided	Recovery of semen if oral penetration within 2 days (48 hours). ***Second mouth sample***	**Mouth collection kit** Rub one dry swab all around the inside of mouth, including over and under the tongue, all sides of the teeth and gums and inside cheeks, including: dentures, dental fixtures and any oral piercing. Repeat with second dry swab (if available). Label the swabs to indicate the order in which they were obtained, e.g. DJR1/A and DJR1/B.	Plain swab. Place immediately in swab sleeve/tube and then in tamper- evident bag. Swabs from the same site can be packaged in a single tamper-evident bag. **Freeze**
Mouth rinse	Recovery of semen if oral penetration within 2 days (48 hours). ***Third mouth sample***	**Mouth collection kit** Rinse mouth with sterile water and retain washings in polypot. Examinee must wear gloves whilst handling polypot.	Polypot placed in tamper-evident bag. The gloves worn by the examinee during the examination do not need to be retained and exhibited. **Freeze**
Control swab (1)	Control swab for each batch. There is no need to take a moist control swab if the batch number is recorded.	Submit one unopened swab per batch of swabs (or module), if necessary; some kits do not have a control swab, as it can be obtained from the kit provider, if required. The forensic practitioner should clarify what arrangements pertain at the site where they practise.	Place unopened plain sterile swab in tamper-evident bag. **Freeze**
Control skin swab	Recovery of background DNA and/or other material – to aid interpretation when its presence in a specific area is significant. Ensure relevant background area is sampled.	Using moderate pressure, roll a moistened swab over relevant area of skin. Repeat the process with a dry swab for the site being sampled. If multiple areas of skin are sampled, take appropriate multiple controls.	Plain swab. Place immediately in swab sleeve/tube and then in tamper-evident bag. **Freeze**

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Recommendations for the collection of forensic specimens from complainants and suspects

SAMPLE TYPE	REASON FOR ANALYSIS	METHOD OF SAMPLING	PACKAGING AND STORAGE
Skin swabs (minimum 2 per relevant area) See hand section	As per Hand swabs Sites one might consider to be relevant due to prolonged skin-to-skin contact and/or drainage: mons pubis, inner thigh, groin crease, buttocks.	**Swab collection kit** Using moderate pressure, roll a moistened swab over the relevant area of skin. Roll second dry swab over the same area. If skin is moist prior to sampling, both swabs should be dry. Sample with more than two swabs if staining remains visible after initial sampling (repeat moist/dry cycle if skin is dry). Label the swabs to indicate the order in which they were obtained, e.g. DJR4/A and DJR4/B. If multiple areas of skin are sampled, take appropriate multiple controls.	Plain swab. Place immediately in swab sleeve/tube and then in tamper-evident bag. **Freeze**
Vulval swabs (2) ***First female genital sample***	Recovery of body fluids/DNA/other material if: • vaginal intercourse (even if condom purported to have been used) within 7 days (168 hours); • digital vaginal penetration within 48 hours; • anal intercourse (even if condom purported to have been used) within 3 days (72 hours); • ejaculation onto vulva/perianum/perineum within 7 days; • contact (touch) with outside areas (skin) within 48 hours.	**Swab collection kit** Roll one moistened swab over the vulva and perineum. Repeat with second dry swab. If vulval skin (or visible stain) is moist prior to sampling, both swabs may be dry. Sample with more than two swabs if staining remains visible after initial sampling (repeat moist/dry cycle). Label the swabs to indicate the order in which they were obtained.	Plain swab. Place immediately in swab sleeve/tube and then in tamper-evident bag. **Freeze**
Low vaginal swabs (2) ***Second female genital sample***	Recovery of body fluids/DNA/other material if: • vaginal intercourse (even if condom purported to have been used) within 7 days (168 hours); 3 days (72 hours) if examinee is pre-pubertal and **in exceptional cases** it is possible to pass a swab; • digital vaginal penetration within 48 hours; • anal intercourse (even if condom purported to have been used) within 3 days (72 hours); • ejaculation onto vulva/perianum/perineum within 7 days; • contact (touch) with outside areas (skin) within 48 hours.	**Swab collection kit** Insert a dry swab approximately 3-5cm into the vagina (reduce as appropriate if examinee is pre-pubertal). Use gentle rotational movements to sample the lower half/third of the vagina. Repeat with second dry swab. If the vaginal mucosa is markedly dry, the first swab can be moistened with sterile water (see instructions for use). Label the swabs to indicate the order in which they were obtained.	As above **Freeze**
High vaginal swabs (2) ***Third female genital sample***	Recovery of body fluids/DNA/other material if: • vaginal intercourse (even if condom purported to have been used) within 7 days (168 hours); 3 days (72 hours) if examinee is pre-pubertal and **in exceptional cases** it is possible to pass a swab; • digital vaginal penetration within 48 hours; • anal intercourse (even if condom purported to have been used) within 3 days (72 hours); • ejaculation onto vulva/perianum/perineum within 7 days; • contact (touch) with outside areas (skin) within 48 hours.	**Swab collection kit** Pass a lubricated, single-use speculum (specify lubricant used). Roll two dry swabs, one at a time, over the mucosa of the unsampled upper two thirds/half of the vagina, making sure the fornices are sampled. If it is not possible to pass a speculum, attempt to obtain two "blind" high vaginal swabs instead, and label as such. Label the swabs to indicate the order in which they were obtained.	As above If fluid has been accumulated within/on the speculum, swab the collection of fluid and label as 'speculum swab(s)'. Swab the outside and inside of the blades of the speculum (1 dry swab) and place the swab(s) in the swab sleeve(s)/tube(s) and then in a tamper-evident bag. Submit opened tube/sachet of lubricant. **Freeze**

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SAMPLE TYPE	REASON FOR ANALYSIS	METHOD OF SAMPLING	PACKAGING AND STORAGE
Endocervical swabs (2) ***Fourth female genital sample (post-pubertal only)***	Recovery of body fluids/DNA, if endocervix is visible and it is possible to pass a swab: • vaginal intercourse (even if condom purported to have been used) within 7 days (168 hours) or; • anal intercourse (even if condom purported to have been used) within 3 days (72 hours).	**Swab collection kit** With the speculum in place, use two dry swabs, one at a time, to sample the endocervix. When sampling the endocervix, always keep the proximal end of the swab in view. Label the swabs to indicate the order in which they were obtained.	Plain swab. Place immediately in swab sleeve/tube and then in tamper-evident bag. **Freeze**
Perianal swabs (2) ***First anal sample***	Recovery of body fluids/DNA/other material if: • vaginal intercourse with or without anal intercourse (even if condom purported to have been used) within 7 days (168 hours). or; • anal intercourse* (even if condom purported to have been used) within 3 days (72 hours) or; • digital anal penetration within 48 hours. • ejaculation onto/contact with vulva/perianum/perineum. *In a female alleging anal intercourse only, please seek consent to take the full sequence of genital samples in addition to ano-rectal swabs	**Swab collection kit** Using moderate pressure, roll a moistened swab over the perianal skin in an area of 3cm radius from the anus; roll second dry swab over the same area. If skin is moist, both swabs should be dry. Recover on more than two swabs if staining remains visible after initial sampling (repeat moist/dry cycle if skin dry). Label the swabs to indicate the order in which they were obtained.	Plain swab. Place immediately in swab sleeve/tube and then in tamper-evident bag. **Freeze**
Anal canal swabs (2) ***Second anal sample***	Recovery of body fluids/DNA/other material if: • anal intercourse* (even if condom purported to have been used) within 3 days (72 hours) or; • digital anal penetration within 48 hours. *In a female alleging anal intercourse only, please seek consent to take the full sequence of genital samples in addition to ano-rectal swabs	**Swab collection kit** Insert a moistened swab 2-3cm through the anal orifice. Use gentle rotational movements to sample the anal canal. Thereafter, the process is repeated with a second dry swab. Label the swabs to indicate the order in which they were obtained.	As above **Freeze**
Rectal swabs (2) ***Third anal sample***	Recovery of body fluids/DNA/other material if: • anal intercourse * (even if condom purported to have been used) within 3 days (72 hours) or; • digital anal penetration within 48 hours. *In a female alleging anal intercourse only, please seek consent to take the full sequence of genital samples in addition to ano-rectal swabs	**Swab collection kit** Pass a lubricated, single-use proctoscope (specify lubricant used) at least 3-4cm into the anus, remove the obturator and sample the mucosa of lower rectum using two dry swabs. The average anal canal is about 3cm long in the adult (range 1.4 – 3.8cm, in males and 1.0 – 3.2cm in females). The mucosa of the upper anal canal is a deep purple colour, which readily distinguishes it from the red/pink mucosa of the lower rectum. **If it is not possible to pass a proctoscope, try to obtain two 'blind' anal canal/rectum swabs, and label as such.**	As above If fluid has been accumulated within/on the proctoscope, swab (dry) the collection of fluid and label as 'proctoscope swab(s)'. Swab the proctoscope & place the swab(s) in the swab sleeve(s)/tube(s) and then in a tamper-evident bag. Submit opened tube/sachet of lubricant. **Freeze**

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Recommendations for the collection of forensic specimens from complainants and suspects

SAMPLE TYPE	REASON FOR ANALYSIS	METHOD OF SAMPLING	PACKAGING AND STORAGE
Penile swabs **Shaft and external foreskin (if present) (2)** **Coronal sulcus and internal foreskin (2)** **Glans (2)**	Recovery of body fluids/DNA/other material (even if condom purported to have been used) if intercourse within 3 days (72 hours).	Don one new pair of outer gloves. If the examinee is handling his penis, he must be wearing gloves. **Swab collection kit** **Shaft** – Using moderate pressure, roll a moistened swab over the skin of the shaft and, if present (i.e. uncircumcised), the external foreskin covering the glans. Roll second dry swab over the same area. **Coronal sulcus and internal foreskin (if present)** – Retract the foreskin (if present) and using moderate pressure, roll a moistened swab around the coronal sulcus and the internal foreskin now lying over the shaft; roll second dry swab over the same area. **Glans** – Using moderate pressure, roll a moistened swab over the skin of the glans; roll second dry swab over the same area. Sample with more than two swabs if staining remains visible after initial sampling (repeat moist/dry cycle). Label the swabs to indicate the order in which they were obtained.	As above **Freeze**
Hair **head, pubic and body hair as appropriate e.g. facial** **FOR TOXICOLOGY SEE PAGE 7**	**A.** Recovery of foreign particles, e.g. glass, fibres, hairs. **B.** Recovery of body fluids/contact DNA (e.g. from pulling)/other material up to 72 hours **C.** Control sample for hair comparison: take from complainants and suspects where relevant, e.g. unknown assailant	**Hair Collection Kit** **A.** Recover visible foreign particles with disposable forceps and collect in paper sheet/drape. **B.** Swab and/or cut relevant area. If hair is dry, use moistened swab then dry swab (see instructions for use). **This should be done before combing/gloving/plucking.** Once the above has been considered, it may be relevant to use low-adhesive tape collected onto acetate sheets (available from Crime Scene Investigator (CSI) or gentle combing of the head or pubic area (see below). If acetates are not available, stick onto a tamper-evident bag. **C.** Give examinee the option to have hair combed or to comb own hair using normal hair comb – **not** a nit-comb. Comb hairs with an aim of collecting 5 with roots (and make up to 25 with cutting as close to the skin as possible). If <5 roots are yielded, put on standard gloves and run fingers through hair. If <5 roots are yielded still, give examinee the option of plucking.	Fold paper sheets/drapes securely with upper sides inwards to retain debris. Place each type of sample in separate tamper-evident bag (include scissors, forceps and/or comb in the bag, if used). Stick low-adhesive tape onto acetate sheet and then place (tape & acetate, or tape and tamper-evident bag) into tamper-evident bag. Biological samples (e.g. ejaculate in hair) should be frozen. Non-biological samples, e.g. glass fragments, must be placed in a **DRY STORE at normal room temperature**. **Other samples should be frozen.** **FOR TOXICOLOGY SEE PAGE 7**
Buccal scrapes (2)	Reference sampling for DNA profiling after any relevant forensic oral samples are taken (see page 2).	**Elimination DNA Sampling kit (for complainants)** **PACE DNA sampling kit (for detainees)** Take one buccal scrape from the inside of each cheek at least 20 mins after examinee has had a drink, food or a cigarette (in cases involving oral sex within 48 hours, consider an additional sample at least two days [48 hours] after incident).	Place in plastic tubes then into a tamper-evident bag. **Freeze** Retain under CPIA for future YSTR. Download the document at: https://www.gov.uk/government/publications/access-and-use-of-dna-samples-profiles-and-associated-data

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SAMPLE TYPE	REASON FOR ANALYSIS	METHOD OF SAMPLING	PACKAGING AND STORAGE
Condoms	Recovery of body fluids/DNA/other material if in situ or after incident.	Condom collection kit Secure the open end of condom (do NOT knot). Place in plastic container with minimum handling. It is preferable to use disposable forceps to handle a condom when packaging it. The forceps should be provided in the kit.	Place in plastic container/pot in tamper-evident bag. **Freeze**
Sanitary towels/ tampons/ other sanitary wear/ incontinence pads/ nappies/ toilet tissue	Recovery of body fluids/DNA/other material, if in situ or after incident.	Retain intact.	Place in plastic container then into tamper-evident bag or straight into tamper-evident bag, e.g. for toilet tissue. **Freeze**
Gunshot residue (GSR)	Recovery of gunshot residues (GSR) if gun thought to have been in contact with, or fired within 3m of skin or hair surfaces. Persistence up to approx. 4 hours – hands, 6 hours – face, 12 hours – hair. Download Critical success factors for Gunshot Residue (GSR) recovery in Rape and Sexual Assault Cases	Normally obtained by Crime Scene Investigator (CSI) but if not available (e.g. self-referral case) follow instructions in GSR kit (sometimes referred to as 'Firearms Discharge Residue kit') available from local CSI. If a dedicated GSR sampling kit is not available, then plain swabs can be used to sample body surfaces by first moistening the swab (see instructions for use). A dry swab is not required. An unopened control swab should be exhibited alongside GSR samples.	Place samples and completed 'Sampling Report' (in the kit) in labelled tamper-evident bag. **Store at normal room temperature.**
Ground sheet/ Couch cover/ Seat cover	Recovery of body fluids or foreign particles that may fall from clothing or body during examination, if the event is recent or the examinee is wearing the same clothing and/or has not washed since event.	**Clothing collection kit** Stand examinee on ground sheet when undressing.	Place separately in tamper-evident, breathable bags and seal, if relevant. Fold paper sheets/drapes securely with upper sides inwards to retain debris. **STORE DRY**

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Toxicology

SAMPLE TYPE	REASON FOR ANALYSIS	METHOD OF SAMPLING	PACKAGING AND STORAGE
Blood preserved **(at least 1.5% sodium fluoride + potassium oxalate or EDTA)**	Take a sample for drugs and/or alcohol if incident occurred within **3 days (72 hours)**.	Approximately 7.5 ml into 10ml/2x5ml tubes (no more than ¾ full, preferably glass). Ideally, if volatile analysis* required, a second sample should be taken similar to the first (no more than ¾ full). **Blood samples for volatile analysis must be frozen ideally within the hour and kept frozen in transit.** *e.g. from solvent abuse or solvent inhalation	**Blood and Urine** Place tubes inside sealed plastic containers and then into tamper-evident bags. Ideally samples should be refrigerated, but if no refrigerator available, they can be frozen as long as the sample tubes are **no more than ¾ full (no more than 20mls of urine)**. **REFRIGERATE (up to 4 weeks) OR FREEZE (for longer term storage)** Samples should be sent for analysis as soon as possible otherwise some drugs could be undetectable due to instability. Place toilet tissue into labelled, tamper-evident bag. Exhibit as a biological forensic sample (not a toxicology sample) as per condom/sanitary towel. **FREEZE (Toilet tissue)**
Urine **preserved (at least 1.5% sodium fluoride)**	Take a sample for drugs and/or alcohol if incident occurred **within 5 days (120 hours)**. Should be obtained If suspected drug-facilitated crime in preceding 14 days. If incident happened 3 days or more ago, it is recommended that a hair sample should be taken as per the guidance below. It is recommended that the hair sample is submitted to the laboratory for initial analysis (and the urine sample be stored for potential future analysis i.e. if a relevant drug is detected in the hair).	Take two urine samples if the incident occurred in the preceding 24 hours. If the incident occurred more than 24 hours ago, only one sample is required Take the first sample as soon as practicable after the incident, and the second should be the next urination after the first sample and ideally within an hour of the first if possible. Take the second consecutive urine sample, even if not within an hour. Decant ideally 20 ml of urine into a tube, preferably of glass, of at least 25ml in capacity (i.e. fill tube just over ¾ full). Both specimens can be taken prior to full medical examination. Urine from complainants does not need to be witnessed. When a urine sample is obtained, if the examinee uses toilet tissue, (which may be provided in the kit), to wipe afterwards, this should also be retained and exhibited.	
Hair **(normally only head hair suitable)**	If incident occurred up to 6 months prior to the examination and there is a possibility that drugs may have been eliminated from the urine (drugs are eliminated from urine at rates varying from 12 hours to over 3 weeks). If in doubt consult the laboratory for advice.	Follow instructions in specific kit from specialist laboratory. See Collecting Hair Samples for Toxicology for further guidance. **Should only be taken a minimum of 4-6 weeks after date of interest.** Examinee should be requested not to cut or chemically treat (dye, bleach or perm) their hair in the intervening period.	Hair samples should be packaged as described in the specific hair testing kit. They should then be placed in tamper-evident bags. Hair samples for toxicology must not be frozen or refrigerated. **They must be STORED DRY at normal room temperature.**
Nail clippings	Fingernail (or toenail) clippings can be used for drugs analysis, especially as an alternative when the individual has no, or a limited amount of, head and body hair.	Follow instructions in specific kit from specialist laboratory, if available. See Collecting Nail Clippings for Toxicology for further guidance. Clippings should be taken a minimum of 4 weeks after the date of interest.	Nail clippings should be enclosed in suitable packaging (e.g. as described in the specific testing kit; folded clean paper secured with tape) and then placed in a tamper-evident bag. Nail clippings for toxicology must not be frozen or refrigerated. They must be stored dry at normal room temperature.

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Produced by Dr Margaret Stark and the Forensic Science Subcommittee on behalf of the Faculty of Forensic & Legal Medicine