



## The Royal College of Pathologists

# National guidelines on a standardised proforma for 'chain of evidence' specimen collection and on retention and storage of specimens relating to the management of suspected sexually transmitted infections in children and young people for medicolegal purposes \*

May 2005

A Working Group of The Royal College of Pathologists in association with the Adolescent Special Interest Group of the Medical Society for the Study of Venereal Diseases

In accordance with the College pre-publications policy, this document was put on The Royal College of Pathologists' website for consultation from 9 February to 8 March 2004. Two pieces of feedback were received, which the working group has considered for this version of the publication. A redraft will be produced shortly – please see the note below.

**Prof John A Lee**  
Director of Publications

Following the publication of *National Guideline on the Management of Suspected Sexually Transmitted Infections in Children and Young People* by the Clinical Effectiveness Group; Association for Genitourinary Medicine (AGUM) and Medical Society for the Study of Venereal Diseases (MSSVD), the Specialty Advisory Committee on Medical Microbiology expressed concern regarding lack of national guidance on 'chain of evidence' protocols and retention of specimens in this clinical area.

A working group of The Royal College of Pathologists, in association with the Adolescent Special Interest Group of the MSSVD, has drawn up this guidance to address these concerns, and has consulted widely. Subsequent publication of the *Intercollegiate Report on Sudden Unexpected Death in Infancy* and comments received during consultation have made it clear that there is a need for generic guidance on the collection, transport, analysis and retention of specimens submitted to all pathology disciplines where information from these investigations may be used in medicolegal enquiries.

This guidance contains important principles that are generic to all disciplines, but will be redrafted shortly to ensure broader application. Please email any comments to [publications@rcpath.org](mailto:publications@rcpath.org), with 'Feedback – Chain of evidence' in the subject line.

**Dr Grace Smith**  
Chair, Specialty Advisory Committee on Medical Microbiology  
13 May 2005

### UPDATE JUNE 2006

The title has now been changed from the May 2005 title of *National guidelines on a standardised proforma for 'chain of evidence' specimen collection and on retention and storage of specimens for medicolegal purposes*. This is to avoid conflict and confusion with forthcoming document, *Guidelines for handling medicolegal samples and preserving the chain of evidence*, which will cover all pathology specialties, not just medical microbiology.

## MEMBERS OF THE WORKING GROUP

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## 1 INTRODUCTION

Following the publication of 'National Guideline on the Management of Suspected Sexually Transmitted Infections in Children and Young People' (Clinical Effectiveness Group; AGUM and MSSVD),<sup>1</sup> there has been concern regarding lack of national guidance on 'chain of evidence' protocols and retention of specimens. The Group has made four main observations.

- A national 'chain of evidence' form would be beneficial.
- Advice on storage time for specimens from children that have been abused is needed.
- Guidelines are needed for the handling of medicolegal specimens (see Appendix A).
- Records would have to be stored for the required period.<sup>2,3</sup>

At a meeting of the Specialty Advisory Committee on Medical Microbiology (The Royal College of Pathologists, October 2002), it was noted that not all Trusts have standard operational procedures (SOPs) for 'chain of evidence' in place. Guidance is also needed for laboratories when positive results for sexually transmitted infections are obtained from swabs taken in general practice. It was agreed that a small working group be formed to address these issues.

## 2 AIMS

The aims of this document are to produce guidelines applicable to both children and adults, to address the following issues:

- a national 'chain of evidence' form
- advice on length of storage for specimens from both children and adults that have been abused.

## 3 CURRENT GUIDANCE

### 3.1 Chain of evidence<sup>1,4</sup>

The chain of evidence is a legal concept, which requires that the origin and history of any exhibit to be presented as evidence in a court of law must be clearly demonstrated to have followed an unbroken chain from its source to the court. All persons handling the sample and the places and conditions of storage must be documented, with a note of the time, date and place and signatures where appropriate.

Some cases will involve the presentation of the actual exhibit in court, but more commonly – for example, for swabs and other biological specimens – the report is acceptable if the chain from client to the report can be shown to be intact.

Problems arise when the need to start a formal chain is not appreciated. A swab initially intended for clinical purposes may show the presence of a STI, which may be of important evidential value. Unless the chain of evidence has been initiated by the physician or nurse taking the swabs, the result will be inadmissible in a criminal court.

A chain involving a swab in a case of suspected sexual abuse may involve the physician taking the swab, nursing and portering staff, the police officer or laboratory scientist to whom it is handed, the laboratory scientist dealing with and examining the swab and the forensic scientist or clinical microbiologist. Either the physician or nurse taking the swab must seal it, label it fully and hand it to the next person in the chain, noting the date, time and person to whom it is handed.

### 3.1.1 Children

The recent *National Guideline on the Management of Suspected Sexually Transmitted Infections in Children and Young People*<sup>1</sup> suggests a ‘chain of evidence’ proforma that can be used for this patient group.

### 3.1.2 Adults

The *2001 National Guidelines on the Management of Adult Victims of Sexual Assault*<sup>5</sup> discuss that ‘chain of evidence’ swabs are required for specimens to be admissible as evidence in court, but acknowledge that protocols are often difficult to implement in a hospital laboratory situation. There is no suggested proforma for the ‘chain of evidence’ form.

Appendix B shows a ‘chain of evidence’ proforma. The proforma is a guideline only and may need to be tailored to reflect local variation in laboratory procedures for processing of medicolegal specimens. In the interests of standardising the proforma across all age groups, it may be used for specimen collection in both children and adults.

## 3.2 Length of storage time for ‘chain of evidence’ specimens

The Royal College of Pathologists sets out specific guidelines for retention of routine patient records and pathology samples.<sup>2</sup> With regard to medicolegal cases, it also states that hand-written notes are preferable to electronically stored information.

**The Royal College of Pathologists gives no guidance with respect to length of storage for ‘chain of evidence’ samples.** It is generally accepted that all positive ‘chain of evidence’ written records be stored indefinitely. All swabs should be stored at +4°C. Positive samples from cases of gonorrhoea should undergo regular sub-culture in an incubator to maintain viability of the organism. In our opinion, there seems little point in keeping specimens beyond one year (e.g. swabs and subcultures).

## 4 REFERENCES

1. Thomas A, Forster G, Robinson A, Rogstad K, for the Clinical Effectiveness Group; AGUM and MSSVD. National Guideline on the Management of Suspected Sexually Transmitted Infections in Children and Young People. *Sex Transm Infect* 2002;78:324–331.
2. The Royal College of Pathologists. *The Retention and Storage of Pathological Records and Archives (2<sup>nd</sup> edition)*. London: The Royal College of Pathologists, 1999.

3. The Data Protection Commissioner. Data Protection Act 1998. London: The Stationary Office Limited, 1998.
4. The Royal College of Physicians of London. *Physical Signs of Sexual Abuse in Children (2<sup>nd</sup> edition)*. London: The Royal College of Physicians of London, 1997.
5. Lacey H, for the Clinical Effectiveness Group; AGUM and MSSVD. *2001 National Guidelines on the Management of Adult Victims of Sexual Assault*. [www.mssvd.org.uk](http://www.mssvd.org.uk)

## 5 USEFUL WEBSITES

- [www.bashh.org](http://www.bashh.org) Website of the British Association for Sexual Health and HIV (BASHH), formed by the merger of the Medical Society for the Study of Venereal Diseases (MSSVD) and the Association for Genitourinary Medicine (AGUM).
- [www.apswb.org.uk](http://www.apswb.org.uk) Website of The Association of Forensic Pathologists, containing guidance on paediatric forensic examinations regarding possible child sexual abuse.
- [www.rcpath.org](http://www.rcpath.org) Website of The Royal College of Pathologists.

## APPENDIX A Procedure for 'medicolegal' specimens

### 1 Specimens requiring this procedure

This procedure is required for:

- a) specimens which carry the clinical details 'rape', 'child abuse', 'CSA', 'sexual abuse', or 'assault' from all locations
- b) medicolegal samples which are accompanied by a laboratory 'chain of evidence' form (LCOEF) instigated by the initiating doctor at the clinic
- c) specimens which are brought to the laboratory by the police doctors who have taken them. These will be accompanied by a request card and a 'chain of evidence' form. (These specimens are normally dealt with at forensic laboratories, but occasionally one may come to clinical laboratories).

### 2 Receipt of specimens

During normal working hours, the specimens should be received by a biomedical scientist (BMS) who checks the correctness of provenance and labelling of the specimens. A BMS 3 or 4 will confirm the receipt of samples and counter-sign the LCOEF.

In the case of 1a) above, a laboratory 'chain of evidence' form (LCOEF, see Appendix B) is then completed and stapled to the request form. **A separate LCOEF must be completed for each sample sent to the laboratory. Where samples are 'split' and aliquots are sent to different sections of the laboratory, a separate LCOEF should be completed for each section. The sample 'splitting' process should be fully documented and signed by the operator. Stickers may be used for the patient's details, but name, time and signatures must be completed on each individual form.**

In the case of 1b), a LCOEF will already be partly completed by the requesting doctor.

In the case of 1c), the BMS 3 or 4 signs the police 'chain of evidence' form, recording the date and time of receipt, photocopies it and gives the photocopy back to the person who brought the specimen. The original is attached to a LCOEF which the laboratory instigates and which the person who brought the sample will sign.

Out of normal working hours, the on-call BMS deals with the documentation, but the next working day, the LCOEF and work must be handed over to a BMS 3 or 4 for checking.

### 3 Supervision of specimen processing

All work on the specimen must be carried out by the BMS, under supervision of the BMS 3 or 4 in charge of the section, who will check the setting up and reading of tests. The BMS 3 or 4 must ensure that all results have been recorded on the request form and LCOEF. The BMS 3 or

4 must check the LCOEF at completion, ensuring that all results have been finalised or completed on the laboratory computer system.

If the responsibility for the specimen(s) is transferred to another BMS 3 or 4, he or she should also sign the LCOEF and insert the date and time of hand-over.

Full details should be recorded of cultures set up, times, temperatures and atmospheres of incubation and of reagents used (including batch numbers, manufacturer, expiry date, etc). These data items should be recorded according to normal laboratory practice, but also copied onto a record that will be kept with the LCOEF. Items not normally specifically recorded must be documented for 'medicolegal' specimens.

#### **4 Reporting procedures**

A member of the medical staff must check the paperwork at completion and sign and put the date and time of this check on the LCOEF. Reporting should be carried out as normal, with the final report being issued as normal.

The LCOEF and request form should be kept permanently in a specific file, kept securely by a designated senior member of staff of the laboratory.

#### **5 Saving of isolates**

It will usually be appropriate to save isolates from these specimens for forensic evidence; this should be discussed with the consultant microbiologist at the time of report issue.

All routine laboratory specimens that have a LCOEF completed must be saved in a designated place, stored at an appropriate temperature. Such specimens should be kept indefinitely.

Gram-stained slides, positive culture confirmation slides, etc. should also be kept indefinitely, in a designated secure place.

In the case of a nucleic acid amplification test (NAAT) being performed, it is necessary to save the original sample, as an isolate of an organism has not occurred. The amplified DNA will be present in the original sample. The original swab or urine sample should be stored indefinitely at -20°C. Due to shortage of space, it may be necessary to discard bulky samples, e.g. urines after a defined period, such as two years.



**ALL NAMES MUST BE ACCOMPANIED BY A SIGNATURE**

<b>Procedure</b>	<b>Name</b>	<b>Signature</b>	<b>Date</b>	<b>Time</b>
BMS 3/4 check on completion				
Medical staff check on completion				