Forensic Science Regulator
Overseeing Quality

Newsletter - August 2016- No 28

Message from the Regulator

Several appendix and guidance documents have been published since the last newsletter (see the publications section of the newsletter). The issue of critical findings checks was raised during the consultation on the audio appendix as it is a small sector often made up of small and medium enterprises and sole traders. The critical findings review process is a widely recognised form of quality control; the first issue of the Regulator's Codes of Practice and Conduct detailed the checking and review requirement as well as indicating that being the sole reviewer of one's own critical findings was a threat to impartiality. These are central requirements for accreditation and although I accept that implementing critical findings checks is more difficult for sole traders and small forensic units, it remains a requirement and will require greater cooperation between such units to deliver this important quality assurance.

It is important to stress that both critical findings checks and administrative checks must be conducted and must be thorough, as these are valuable error traps. However, there have been instances recently when errors have not been spotted at the checking stages, or where revision at the checking stage has led to the introduction of an administrative error. Errors, even if administrative or typographical, can undermine the credibility of an expert's report and checks simply cannot be rushed.

Gill Tully
Forensic Science Regulator

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Validation

The Codes of Practice and Conduct for Forensic Science Providers and Practitioners (the Codes), which have been in place since 2011, have consistently emphasised the importance of scientific validation.

Validity of methods is a factor for courts to take into account in determining the reliability of expert opinion (Criminal Practice Directions, part 19A.5(a)). Validation includes characterising the performance of a method for its intended purpose, and ensuring that its limitations and the uncertainties associated with it are explicitly understood.

A number of methods currently being presented as forensic science do not appear to have undergone validation, nor are the uncertainties always understood or made explicit in reports to investigators and courts; an example may be some methods for estimation of height from CCTV footage.

If a method cannot be validated and its uncertainties remain unknown, it should not be presented as 'forensic science'.

It is worth noting that the Criminal Practice Directions apply to all expert opinion evidence irrespective of whether the evidence is considered science, and applies to all evidence types.

Where a method is novel or new to accreditation, the required validation may be more extensive than with adopted methods. Validating such methods can highlight issues that need a consensus view from the scientific community.

If there are outstanding issues about the underpinning body of knowledge, consistency in measurement uncertainty or how to realistically validate the method against ground truth data, then these need to be addressed before application for accreditation and certainly before live use or pilot studies.

Protocol: Using Casework Material for Validation Purposes FSR-P-300

A number of years ago the Crown Prosecution Service (CPS) was consulted by a forensic science provider about pilot exercises of a new method involving the use of casework material. Those discussions led to a consideration of the risks to the criminal justice system (CJS) of such use and the safeguards in place.

The result was that the Director of Public Prosecutions determined that the use of casework material in validation and pilot exercises created a serious risk to the operation of the CJS and that the safeguards in place were not sufficient. He therefore decided that such use would not be authorised by the CPS.

The Regulator is of the view that the use of casework material is, in many cases, a vital part of the robust validation of a new method. The Regulator has therefore worked with the CPS and the National Police Chiefs' Council (NPCC) to create a framework that allows the use of casework material. This has recently been published and is available at:

https://www.gov.uk/government/publications/protocol-using-casework-material-for-validation-purposes

The protocol envisages many validations being performed under an 'assumed approval' model. Where this model does not apply, a simplified approval method may be used.

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Protocol: Using Casework Material for Validation Purposes FSR-P-300

This will leave a small proportion of cases where full approval has to be obtained.

The basic principles that must apply in order for casework material to be legitimately used as part of the final validation process include:

a. casework material is only to be used as part of a documented validation plan that meets the requirements of the Forensic Science Regulator's Codes;

b prior to using casework material, validation exercises must provide sufficient data for a documented risk assessment and subsequent risk management plan covering all the identifiable risks that could occur in the use of casework material; and

c. each validation plan must include a plan for resolving any legal and ethical issues identified in relation to the use of casework material in the validation.

It must be stressed that the use of casework material is only acceptable as the last stage of a validation where there has been sufficient work undertaken and the new method is believed to be very reliable. Otherwise the risks to the CJS are too high.

Criminal Procedure Rules

All individuals providing evidence need to be aware of their duties to the court. Those expecting to be recognised by the court as experts need to comply with the Criminal Procedure Rules (CrimPR), including Parts 1,3,16 and 19.

The CrimPR require each party to disclose any information that could significantly detract from the credibility of the expert witness – see 19.3(3)(c). Further, the expert's report should include such information as the court may need, to decide whether the expert's opinion is sufficiently reliable to be admissible as evidence – see 19.4(h).

Failure to comply with the Regulator's standards is providing information that could significantly detract from the credibility of the expert witness and have a bearing on reliability. This means that if accreditation is required by the Regulator's statement of requirements set out in the Codes, but has not been achieved, such non-compliance should be declared.[1] The validation status of any method employed should also be clearly stated.

The Criminal Practice Directions suggest criteria that the court may wish to take into account when assessing admissibility. Providers with validated methods and accreditation should readily be able to demonstrate these requirements. It is, of course, for the courts to decide how they will apply the Criminal Practice Directions.

CrimPR 19.4. already requires that, where a party who wants to introduce expert evidence otherwise than as admitted fact, in a report:

> "*(f) where there is a range of opinion on the matters dealt with in the report*—[should]
>
> *(i) summarise the range of opinion, and*
>
> *(ii) give reasons for the expert's own opinion.*"

This is echoed in Criminal Practice Direction 19A.5 (g) and the Regulator concludes that this encompasses opinion on reliability of the technique included in the scientific literature.

The CrimPR are reviewed regularly by the Criminal Procedure Rules Committee. The Committee has proposed a number of amendments for the 2016 edition; the most relevant to the forensic science community involves an alteration to Rule 16.

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1 For clarity, declaration of minor non-conformances (i.e. have little or no impact on the outcome provided) against the relevant standards is not required, where accreditation against those standards has been achieved.

Criminal Procedure Rules

Update to Rule 16

Currently Rule 16.3 of the Criminal Procedure Rules states:

"*Where the statement refers to a document or object as an exhibit—*

a. the statement must contain such a description of that exhibit as to identify it clearly; and

b. the exhibit must be labelled or marked correspondingly, and the label or mark signed by the maker of the statement."

There has been a degree of uncertainty as to what this Rule requires. Some commissioners of services require each person referring to an exhibit to sign the exhibit label. Others do not.

The CPS view is that the requirement to sign the label applies to the person who first 'exhibits' the item as opposed to every person who refers to it. It is also clear that in many cases a witness will refer to an exhibit that has never been in their possession and, consequently, cannot sign the label.

The Criminal Procedure Rules Committee has therefore recommended that the wording of Rule 16.3 be amended to read as follows.

"16.3. Where the statement refers to a document or object as an exhibit, it must identify that document or object clearly."

This change is likely to take effect from October 2016. The Criminal Procedure (Amendment No. 2) Rules 2016 are at:

http://www.legislation.gov.uk/uksi/2016/705/contents/made

Assuming the amended Rule comes into force, the changes will also appear at:

http://www.justice.gov.uk/courts/procedure-rules/criminal/rulesmenu-2015

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Digital

With the approaching deadline of October 2017 for accreditation of 'digital forensics', it is vitally important that any contracts for provision of such services are placed with suppliers who will be compliant with the required standard by that date.

This requires that due diligence is performed prior to contract award to provide assurance that the company concerned is sufficiently far advanced towards gaining accreditation to ensure compliance by October 2017. This requirement was stressed by the, then, Minister, the Rt Hon Mike Penning, MP, in his evidence to the Science and Technology Select Committee on 6 July 2016.

Fingerprints

The Regulator's Fingerprint Quality Standards Specialist Group (FQSSG) has developed the fingermark enhancement and image capture appendix to the Codes for public consultation.

Comments should be sent using the consultation feedback form to:

FSRConsultation5@homeoffice.gsi.gov.uk

by **16 September 2016**.

The Fingermark Development and Image Capture consultation document is available at:

https://www.gov.uk/government/consultations/fingermark-development-and-image-capture-codes-of-practice

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DNA Anti-Contamination – Sexual Assault Referral Centres and Custody

The Regulator identified, in her Annual Report (2015), that *"avoiding and detecting contamination: standards for sexual assault referral centres (SARCs) and custody suites"* was one of the areas for which standards were being developed, with the intention to consult on the SARC standard in 2016.

Work is ongoing on production of this detailed standard; however, due the importance of having a minimum standard for forensic medical examinations in place, the Regulator has published interim guidance. This gives guidance on steps to take to minimise the potential for DNA contamination in SARCs and custodial settings.

The interim guidance is available at: **https://www.gov.uk/government/publications/sexual-assault-referral-centres-and-custodial-facilities-dna-anti-contamination**

The guidance includes requirements, guidance and recommendations to healthcare professionals providing forensic science services, including evidential sample collection.

The Regulator's Medical Forensics Specialist Group (MFSG) continues to progress the production of a standard for SARCs that aligns to ISO 15189:2012 *Medical laboratories – Requirements for quality and competence*, this is expected for public consultation in late 2016.

Scientific Working Group on DNA Analysis

The Scientific Working Group on DNA Analysis Methods (SWGDAM) posted three documents on July 25, 2016 for a 30-day consultation for public comment. These are:

a. *An update on interpretation guidelines for autosomal STR typing* (90 pages) to try and help with mixture interpretation;

b. *Contamination prevention and detection guidelines*; and

c. *Guidelines for the processing of sexual assault kits in a laboratory*.

See: **http://www.swgdam.org/#!public-comments/c1t82**.

International Standards ISO Technical Committee 272

The ISO Technical Committee 272 (ISO/TC 272) met on 20–23 June in Delft, The Netherlands, to progress the vocabulary and evidence collection working draft standards. This should be progressed to the committee stage at the next meeting in November.

These standards are not accreditation standards, but can be used for self-assessment or certification. The aim of developing these standards is to raise the standard of forensic science globally, with these as the minimum standards.

The collection standard will not replace the Regulator's requirement for accreditation to BS EN ISO/IEC 17020:2012 *Conformity assessment – Requirements for the operation of various types of bodies performing inspection* for crime scene examination.

The Regulator and the British Standards Institute FSM/1 Forensic Science Processes (BSI/FSM1) Committee are committed to contributing to the development of the forensic science international standards so that they can achieve the maximum potential for this type of standard and increase quality in jurisdictions where accreditation is not feasible.

As each standard reaches the final commenting stage, BSI will facilitate public consultation with stakeholders through the Regulator's Office and the BSI/FSM1 Committee.

Further details of the BSI/FSM1 Committee can be found at:

https://standardsdevelopment.bsigroup.com/Home/Committee/50236770

Further details of the ISO/TC 272 can be found at:

http://www.iso.org/iso/home/standards_development/list_of_iso_technical_committees/iso_technical_committee.htm?commid=4395817.

Small Providers Initiative

The Chartered Society of Forensic Sciences (CSFS), in collaboration with the Forensic and Policing Services Association (FAPSA), is working to assist small businesses/sole traders that do not yet have a quality management system. They intend to develop a generic quality manual that meets the general quality management requirements of the ISO standard, allowing traders to concentrate on developing their technical requirements. The costs of the service are expected to be offset by the time and resources saved in generating a common management system. The CSFS is also working with the UK Accreditation Service (UKAS) to determine a mechanism for reviewing the compliance of a common management system and supporting documentation. The UKAS can foresee some efficiency in assessing organisations that have effectively implemented the common approach.

CSFS and FAPSA held an event earlier in the year and have invited expressions of interest from those participants to be part of the pilot group. They plan to hold a collaborative workshop with the pilot group in October to work through a generic quality manual; the pilot is expected to continue into 2017.

The Regulator supports the initiative, but reminds those that provide services that require accreditation by October 2017 that this pilot and/or service set-up will not deliver to that timeline.

Publications

The main publications on the Regulator's standards framework are available from:

https://www.gov.uk/government/collections/forensic-science-providers-codes-of-practice-and-conduct

Guidance documents on legal obligations for expert witnesses and those involved in forensic pathology investigations are available from:

https://www.gov.uk/government/collections/fsr-legal-guidance

New/updated publications:

Sexual assault referral centres and custodial facilities: DNA anti-contamination

Crime scene DNA: anti-contamination guidance

Speech and audio forensic services

Method validation in digital forensics

Cell site analysis

Legal obligations: issue 4

Protocol: using casework material for validation purposes

Forensic image comparison and interpretation evidence: issue 2

Consultations

Regulator - Fingermark Development and Image Capture

SWGDAM - Interpretation guidelines for autosomal STR typing, processing of sexual assault kits in a laboratory and Contamination prevention and detection

Events of Interest

Chartered Society of Forensic Sciences

Evaluation of Forensic Science Evidence (Collision-Accident Investigation)

Date: 18 October 2016

Venue: Sussex Police Headquarters, Church Lane, Lewes BN7 2DZ

The 2016 Autumn Conference and Annual General Meeting

Date: 3–4 November 2016

Venue: The Jury's Inn Hotel, Broad Street, Birmingham, B1 2HQ

International Association of Bloodstain Pattern Analysts Training Event

Advanced BPA Training

Date: 17–21 October 2016

Venue: Thames Valley Police Training College, Sulhamstead, Berkshire, RG7 4DX.

Contact

Comments, feedback and suggestions for topics are welcomed and should be sent to:

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FSREnquiries@homeoffice.gsi.gov.uk

https://www.gov.uk/government/organisations/forensic-science-regulator

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