Forensic Science Regulator
Overseeing Quality

Quality Standards Specialist Group (QSSG)

Minutes of the meeting held on 18 July 2016 Quality Standards Specialist Group (QSSG)

Home Office, 2 Marsham Street, London, SW1P 4DF

Opening and welcome

1.1 The Chair Dr Gillian Tully, the Forensic Science Regulator (FSR), welcomed all to the meeting. See Annex A for the list of attendees and apologies. Sandra Stanley, Beth Joule and Martin Bradford were standing down from the committee and the FSR thanked them for their contributions.

Minutes of previous meeting

2.1 The minute of the previous meeting on 21 March 2016 had been agreed and published on the GOV.UK website.

Matters arising

3.1 Progress on the previous actions was reviewed as follows:

Recording of criticisms of expert witnesses

3.2 Action 6: The FSR to write to the Criminal Procedure Rule Committee (CPRC) on the recording of criticisms of expert witnesses and report back to QSSG. Jeff Adams had contacted the CPRC on behalf of the Regulator. The CPRC advised that it was for those instructing experts to conduct their own research in order to be able to inform the courts of any issues. However, because many judgements are not published, the CPRC had been asked whether there should be a more formal way for judges to criticise expert witnesses. No response had yet been received.

Action 1: Jeff Adams to continue to progress with the CPRC the requirement for expert witnesses to be informed when their evidence is criticised in court.

Forensic Science quality awareness of senior police officers

3.3 Action 13: The FSR to discuss forensic science quality awareness of senior police officers with Debbie Simpson. The conclusion of this discussion was that as part of a wider police transformation, greater responsibility would be delegated to lower ranks. Scientific Support Managers or their equivalent would have the influence in their forces to perform top management functions. The FSR would provide further updates for QSSG where necessary.

Other Matters Arising

3.4 All the other items were completed or were agenda items for this meeting.

Update from BSI FSM/1 Forensic Science Processes Committee

4.1 The British Standards Institute (BSI) Forensic Science Processes Committee (FSM/1) had met prior to the QSSG meeting. The committee was the United Kingdom (UK) mirror of the international forensics standards committee, providing the UK voice internationally on forensic issues. A report by the Forensic Science Regulation Unit which included decisions made at the corresponding ISO / TC 272 international committee meeting had been discussed at the FSM/1 meeting. The international forensics standards developed by the FSM/1 committee would not become UK accreditation standards, as UK forensics accreditation standards were already set at a higher level. Whilst the FSM/1 committee was improving forensic standards in other countries, the UK would continue to work to the higher ISO 17025 accreditation standards. The FSR would publicise this point in the newsletter, for the benefit of Forensic Service Providers (FSPs) that became aware of this international work. Meanwhile a watching brief would be kept.

Action 2: The FSR to clarify in the next FSR newsletter that the UK would continue to work to ISO 17025 accreditation standards.

FSR codes of practice and conduct (Codes) update

5.1 The group heard that an editorial committee would be chaired by the FSR on 31 August 2016 to review the current third issue of the Codes and draft a new fourth issue, for publication in late 2016 or early 2017. This was part of an ongoing process to keep the Codes up to date. The FSR explained specific issues so far under consideration for the fourth issue of the Codes. These included:

1. whether to include additional specialist forensics sub-disciplines such as geology, soil science and botany and whether these disciplines were accreditable;
2. improving preservation of records for the Criminal Justice System (CJS), in the event that a FSP left the market: in particular to arrange retention of their validation, calibration and environmental monitoring records, which under-pinned their forensic analysis results;
3. whether to require that e-documents that formed part of the forensic evidence in a case be printed and paginated, in order to allow for critical findings checks by other FSPs;
4. whether a unique identifier for forensic evidence needed to be unique only to the case, or to the police/FSP, or nationally within the CJS;
5. provision of guidance for defence organisations on the requirements for retention of forensic evidence in a court case, given that the prosecution retained the master copy.

5.2 QSSG members were invited to submit further issues for consideration. Work on the new version of the codes would take approximately two months. The editorial board would then draft the fourth issue of the codes and provide it for QSSG for review.

Action 3: QSSG members to feed back issues with the Codes to the FSR by 12 August.

5.3 Organisations seeking forensic accreditation needed to comply with the Codes requirements by the time of their next routine inspection by the UK Accreditation Service (UKAS) after October 2016. This provided time to accredit all FSPs against the Codes by the target date of October 2017.

Firearms classification accreditation

6.1 Issue 3 of the Codes included more detail on the firearms classification accreditation requirements. The default position was a requirement for accreditation of all types of firearms classification to ISO 17025 standards from April 2012, with the accreditation to include the Codes by October 2017. However the FSR had permitted the National Ballistics Intelligence Service (NABIS) and the National Police Chiefs' Council (NPCC) to set up a central alternative system for triage and simple classification of firearms outside ISO 17025 and accreditation, by October 2016. The types of simple firearms classifications eligible for the NABIS/NPCC scheme had been discussed with QSSG previously.

6.2 Since then different police forces had developed differing alternative frameworks for the simple firearms classification procedures instead of one central system. Potentially, parts of these schemes could be incorporated into a single central framework, which would need standardised methods, a governance structure and support from collaborative studies by police forces. Given these developments, QSSG were invited for views on what alternative system for simple firearms classification should be provided. QSSG members agreed that the situation had become problematic and it had not been intended for multiple simple firearms classification procedures to be developed. The new version of the Codes would update these firearms classification arrangements.

Action 4: Forensic Science Regulation Unit (FSRU) to update the requirements for firearms classification accreditation in the new version of the Codes.

CSFS/FAPSA pathway approach for SME forensics accreditation

7.1 The group heard that Small and Medium-Sized Enterprise (SME) FSPs would be likely to incur disproportionate costs when seeking accreditation, compared to larger FSPs, due in part to the time required to prepare quality manuals etc. It had therefore been proposed that the Chartered Society of Forensic Sciences (CSFS) and the Forensic and Policing Services Association (FAPSA) would set up a pathway to simplify accreditation for these SMEs, with some group events for accreditation steps, and certain documents shared. The aim was to achieve the same forensics standards in SMEs as for larger FSPs, via an accessible method.

7.2 In principle the procedures could be produced centrally for adoption by individual SMEs. Pre-assessments could be carried out in a workshop facilitated by CSFS. Each SME FSP could then adopt the procedures separately. The present aim was to produce standard materials by September 2016. SME FSPs were being invited to join a pilot group to pursue this approach, within the next two weeks.

Potential CCTV and video viewing guidance

8.1 Issue 3 of the Codes provided details of the video processes which needed validation under ISO 17025. It also clearly stated that viewing of Closed Circuit Television (CCTV), if no further analysis was undertaken, was out of scope for ISO 17025 accreditation. This statement had been included because large volumes of CCTV footage needed viewing by police during investigations. However, an issue had arisen that streamlined forensic reports had been used by police officers to report identifications of individuals from CCTV footage. Streamlined forensic reports were only ever intended to be a summary of an expert's findings and not to be used by non-experts. It was suggested that a centrally developed and applied Standard Operating Procedure (SOP) was required to cover the viewing of CCTV and to minimise the risks associated with its use. In addition, if an identified individual refuted their identification during interview, then the CCTV should be evaluated by an appropriately qualified practitioner.

8.2 The errors which could arise from viewing CCTV were discussed, including incorrect identification of an individual, inaccurate height estimation and incorrect identification of the make and model of a vehicle. Whilst the false identification of an individual from CCTV was considered less likely, the probability that information might be lost from CCTV was considered high.

8.3 The expert network of the NPCC Digital Forensics National Portfolio had produced a flowchart to assist with explaining the scope of the codes for viewing CCTV. It was emphasised that this flowchart needed to clearly indicate which areas of CCTV viewing were within scope for International Standards Organisation (ISO) 17025 accreditation. In particular, UKAS suggested that the flowchart should be altered as it could mislead FSPs into believing that certain activities (such as image enhancement, height estimation, image comparison and speed estimation) could be accredited to ISO 17025, yet the body of knowledge and scientific consensus organisations would need to produce might not be demonstrated by October 2017.

8.4 It was further queried whether these activities would be permitted to continue after October 2017, if accreditation was not possible, because the underpinning science was insufficient. The Regulator highlighted the importance of all processes being scientifically valid and credible, and therefore accreditable. In all areas of forensic science it was essential that the scientific evidence had been collated to support activities. The group heard about reports which had been submitted to the courts that gave a precise measurement of the height of an individual from CCTV footage. Whilst these reports appeared credible and professional, they were not based on scientific rigour, and basic features of being valid methods with an estimation of the uncertainty of measurements were absent. They therefore carried a risk of eroding trust in forensic science.

8.5 In conclusion, it was agreed that a statement should be included in the next FSR newsletter which set out the requirements for accreditation, including a body of scientific evidence. In addition the flowchart needed updating to clarify what was within scope for ISO 17025 accreditation.

Action 5: A statement setting out the requirements for accreditation to be included in the next FSR newsletter.

Facial imaging position paper

9.1 The Codes included a requirement for forensic image comparison to have ISO 17025 accreditation, and the FSR's video appendix included as an example the technique of photo-anthropometry (use of photographs to estimate measurements of individuals) which was used to assist identifications. However, a separate FSR appendix providing guidance on facial comparison had been proposed. QSSG were provided with an initial list of topics being discussed to as whether to include, exclude or to refer to only. For instance, forensic art and reconstruction was considered out of scope for this document (being disciplines of their own), but validation, image quality and screening would be within scope for this guidance.

9.2 Members discussed 'super recognisers' and that these would be referred to in the appendix, but the practice was not in scope, as it was not forensic science. It was clarified that for facial recognition practitioners to provide admissible expert evidence in court, they ought to be subject to appropriate scientific standards and have appropriate qualifications such as knowledge of anthropology and training in facial morphology. Effective training programmes would have broad scope and continuous testing using ground truth data.

9.3 The next facial comparison meeting was in late September 2016. The FSR would provide further updates on the topic for QSSG.

Action 6: The FSR to provide further updates for QSSG on standards for facial comparison evidence.

Automated footwear impression screening

10.1 The FSR had been approached by a number of police forces who were undertaking projects to automatically code footwear impressions from suspects in the custody suite. The suspect walked across the system, allowing a footwear impression image to be recorded. The mark was then automatically coded and checked against the footwear impression database. This novel approach raised issues on validation and accreditation. Whilst coding of footwear was an accreditable process, these auto-coding devices were used to offer a selection to the user from the footwear collection, to allow the pattern to be coded. Any searching would then be based upon a pattern code only, against the coded crime marks, providing potential links based on class characteristics.

10.2 Potentially other issues raised included:

1. the need to retain a record, either by retaining the footwear itself or the image of it;
2. the technique being carried out by officers who were not experts on footwear impressions;
3. although the system was intended for intelligence use there was a risk of it being used for court evidence;
4. whether the decision on a possible footwear match was taken immediately, to allow for the suspect to be released or to be investigated further.

10.3 An agreed approach was needed on regulation for automated footwear screening systems and the Regulator would consider how risks could be mitigated. FSRU would work further on this area and report back to the next QSSG meeting.

Action 7: FSRU to report back to the November QSSG meeting with proposals on regulation for police force custody automated footwear impression screening systems.

DNA Central Elimination Database update

11.1 Progress was provided on the development of the DNA Central Elimination Database (CED). Lancashire Constabulary was reported to be the first force to have checked all the DNA profiles from serving police officers against unsolved profiles on the DNA databases. So far, over one thousand matches had been identified between police officers and unsolved profiles. There was ongoing work to engage with the manufacturers of consumables used in the DNA profile process, in order to add their staff to the CED, and staff working in sexual assault referral centres would also be added, when the necessary consents had been gained.

Casework review project update

12.1 An update was provided on the forensic casework review project, which was reviewing the quality of the entire forensic process in selected rape cases, from the initial report of the crime to the court outcomes. Two police force areas had been asked to provide examples of good and bad rape cases for review. The aim was preparation for a potential full scale project to review forensic casework

12.2 Conclusions that had been made so far were that case records were less accessible than anticipated, especially within police forces and the Crown Prosecution Service (CPS), and differences existed in the way that forensic testing had been utilised. A generic report was being drafted to ensure that the cases examined would remain anonymous. However, a separate detailed summary of each case would be produced, for use only by the FSR, to follow up with the relevant parties. There might be recommendations for further review of the forensic medical aspects of the cases.

Interpretation of complex DNA mixtures update

13.1 QSSG heard an update on work to provide guidance on DNA mixture interpretation software, guidance on the formulation of propositions in the evaluation of DNA mixtures and discussion of issues in relation to the presentation of qualitative opinions of evidential weight in relation to complex mixtures. The group held the view that the work was timely and emphasised the need to decrease the variability surrounding mixture interpretation, and the requirement for a minimum set of standards in this area.

13.2 Draft guidance had been prepared and would be circulated to the FSR's DNA Specialist Group in November. It would not be finalised before the November QSSG meeting, but circulated to QSSG as soon as possible.

Action 8: FSRU to circulate draft guidance on interpretation of complex DNA mixtures to QSSG prior to public consultation.

Evaluative interpretation standard update

14.1 The group heard that no progress had been made with the evaluative interpretation standard, because of a lack of resources. A request had been made to the Home Office for additional resources.

Publications and consultations

15.1 The DNA anti contamination guidance for forensic medical examination in sexual assault referral centres and custodial facilities and the control and avoidance of contamination in crime scene examination involving DNA evidence recovery had been published. In the digital forensics area the following had been published; appendices to the codes on speech and audio forensic services and digital forensics – cell site analysis and guidance on method validation in digital forensics.

AOB and date of next meeting

Out of scope fingermark visualisation

16.1 An area of concern had come to the attention of the FSR, in relation to finger mark visualisation techniques which were out of scope of accreditation. A number of fingerprint enhancement laboratories were not using visualisation techniques where they were out of scope of accreditation, even where they were the best visualisation methods available. The guidance stated that methods which were not utilised within a six-month period or were not used more than six times a year did not need to be included within the scope of accreditation. However, if these methods were robustly tested with adequate documentation and controls then they could still be used by FSPs, even if they were not included within the FSP's scope of accreditation. It was noted that UKAS would only assess FSPs on what was included in their scope of accreditation.

Action 9: The FSR to draft a statement explaining that out of scope fingermark visualisation techniques could still be used, but they needed validation equivalent to Codes requirements.

16.2 The following AOB items were raised:

Open Source digital media accreditation

16.3 Accreditation requirements for use of Open Source software to process digital media were raised. A meeting had been held with the relevant NPCC lead. A new Digital Forensics Specialist Group was being set up which would include experts in this area. However first support for the general accreditation requirements for digital media would be progressed.

Security of transmission and level of encryption

16.4 It was queried whether guidance on the level of encryption required when sending digital media by email should be included in the FSR work-plan. However, the Information Commissioner's Office (ICO) had developed guidance on the levels of encryption that should be applied and therefore this was not a priority for the Regulator at this stage.

Date of next meeting

16.5 The next QSSG meeting would take place on Tuesday 15 November 2016.

Annex A

Present:

Gill Tully	Forensic Science Regulator (Chair)
Duncan Brown	College of Policing (in place of Jo Taylor)
Emma Burton-Graham	HO Science Secretariat
Martin Hanly	LGC Forensics
Peter Harper	Orchid Cellmark Ltd
Anthony Heaton-Armstrong	Criminal Bar Association
Simon Iveson	Forensic Science Regulation Unit
Beth Joule	Lancashire Constabulary
Chanda Lowther-Harris	Metropolitan Police Service
Sandy Mackay	Expert Witness Institute
Katherine Monnery	United Kingdom Accreditation Service
Nuala O'Hanlon	Forensic Science Northern Ireland
Brian Rankin	The Chartered Society of Forensic Sciences
Ewen Smith	Criminal Cases Review Commission
Sandra Stanley	Greater Manchester Police
Steve Sugden	Thames Valley Police (in place of Karen Smith)
Mike Taylor	HO Science Secretariat

Apologies

Shirley Bailey-Wood	British Standards Institute
Mark Bishop	Crown Prosecution Service
Stephen Bleay	Centre for Applied Science and Technology, HO
Martyn Bradford	Avon and Somerset Constabulary
Teresa Cunningham	British Standards Institute
Craig Donnachie	Scottish Police Authority Forensic Services, Scotland
Glyn Hardy	Legal Aid Agency
Jane Higham	Glaisyers Solicitors
Anya Hunt	The Chartered Society of Forensic Sciences
Matthew Marshall	British Standards Institute
Nigel Meadows	Coroners Society, England & Wales
Karen Smith	Thames Valley Police
Kevin Sullivan	Independent
Jo Taylor	College of Policing
Jonathan Vaughan	Centre for Applied Science and Technology, HO