



**Quality Standards Specialist Group (QSSG)**

**Minutes of the meeting held on 22<sup>nd</sup> March 2017  
Home Office, 2 Marsham Street, London, SW1P 4DF**

**1 Opening and welcome**

1.1 The Chair, Dr Gillian Tully, the Forensic Science Regulator (Regulator), welcomed all to the meeting. See Annex A for the list of attendees and apologies.

**2 Minutes of previous meeting**

2.1 The minutes of the previous meeting held on 15 November 2016 were agreed subject to minor amendments and would be published on the GOV.UK website.

**3 Matters arising**

3.1 Progress on actions from the previous meeting were reviewed as follows:

**3.2 Action 3: The Regulator to consider options for disclosure of non-compliance with the Codes prior to the FSAC meeting and to develop standardised wording.**

The Regulator had discussed this with members of the Forensic Science Advisory Council (FSAC) and had been given clear guidance that disclosure of non-compliance should be included in expert witness statements or appendices to these statements.

**3.3 Action 5: QSSG members to provide any further comments on the scope of accreditation for fingerprint comparison to the Regulator.**

The Regulator included in her 2016 annual report that she did not expect any forensic unit to start from scratch and validate the search algorithms within IDENT1. However, the Regulator did expect that bureaux would have validated their own processes, which include IDENT1, and would have an understanding of the limitations and risks associated with these processes.

**3.4 Action 7: The NPCC Performance and Standards Group Chair to provide the police force response on firearms classification accreditation to the Regulator.**

A police force response was provided by ACC David Lewis, who has passed on a set of actions to Assistant Chief Constable Kay, who is responsible for firearms.

**3.5 Action 8: The Regulator to undertake further work on options for standards for facial identification evidence and to establish whether these would be practicable.**

The Regulator is to undertake a meeting with the Forensic Imagery Analysis Group (FIAG) to help clarify options for developing a set of standards. It was acknowledged that developing a standard might be difficult due to limitations in the underlying science. The

Biometrics and Forensics Ethics Group (BFEG) are currently undertaking a review of the police use of custody images, and it was suggested that collaboration in this area would be beneficial.

**3.6 Action 9: The Regulator to provide QSSG with a draft code of practice for anthropology either by email or at the subsequent QSSG meeting.**

The revised version has not yet been received from the authors. The Regulator had requested a progress update, with a view to the Code being a paper for QSSG at the July meeting.

**3.7 Action 11: The Regulator to draft a formal statement relating to routine fire inspections at crime scenes and circulate it to QSSG.** This was included in the Annual Report and read as follows: "The standards requirement applies to all incident scene investigation where forensic science is deployed. Activities that routinely occur where there has been no incident are not included in the requirement set by the Forensic Science Regulator. Therefore, it is not the intention of the Regulator that organisations conducting inspections for the purposes of regulatory enforcement against the Regulatory Reform (Fire Safety) Order would be required to be accredited for that purpose. However, if the Regulatory Reform (Fire Safety) Order assessment also requires scientific issues to be resolved then a suitably qualified expert should be sought."

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

#### **4.0 Fingerprint Comparison Documents**

4.1 Three documents developed by the Fingerprint Quality Standards Specialist Group (FQSSG) were presented to the QSSG members for final comments.

4.2 The first document was a post-consultation appendix to the Regulator's Codes of Practice and Conduct (Codes) in relation to fingermark visualisation and image capture. This document had been updated to include information on image capture. Members had previously queried the scope of the image capture requirements, and were informed the requirements only applied to laboratories, however it was expected that these requirements would feed back to fingerprint recovery at crime scenes. There was an onus on fingerprint bureaux to assist the lab in determining which fingermarks were sufficient to go forward for comparison, with both labs and bureaux expected to demonstrate this competency,

4.3 As a result of updating the fingermark visualisation and image capture document, the related fingerprint comparison appendix was also updated. The two documents now complemented each other.

4.4 In addition, the Regulator's fingerprint examination terminology document had been updated to cover the updated appendices. This had been a major revision that was aimed at standardisation of the terminology across forensic science. The terminology document linked to other documents that contained definitions, so that if definitions were updated in such documents the terminology document did not need to be updated.

4.5 The Regulator highlighted that the issue of deciding when fingermarks were passed on to the bureaux was an important aspect of these documents. The Regulator also drew

the attention of the committee to the new annex (Annex 2) of the comparison document, concerning the procedure for resolving differences of opinion between forensic experts. This disagreement needed to be disclosed and a review process was set out in the annex. Members were invited to provide comment on this appendix.

4.6 The Regulator thanked the out-going FQSSG Chair Gary Pugh who had served in this role for six years. The new Chair would be Gary Holcroft (Scottish Police Authority).

**Action 1: QSSG members to provide comments on the updated fingerprint documents within two weeks.**

## **5.0 Code of Conduct**

5.1 The QSSG heard that the incorporation of a new section (Part 19B) into the Criminal Practice Directions (CPD), which supplement many, but not all, parts of the Criminal Procedure Rules for England and Wales, was likely to require a reference to the Regulator's Code of Conduct. It was therefore an appropriate time to review the wording of the Code of Conduct.

5.2 The members were presented with an updated Code of Conduct for discussion.

5.3 The Regulator highlighted a proposed change to part 10 of the Code of Conduct to include a caveat in brackets: 'Conduct casework using methods of demonstrable validity and comply (subject to minor deviances) with the quality standards set by the Forensic Science Regulator.' This caveat would be to prevent legal difficulties for practitioners if they deviated from the Regulator's Code of Practice in a very minor manner. This proposed change was not to provide practitioners with a way by which to ignore quality standards.

5.4 QSSG members questioned the interchangeable references to both practitioners and expert witnesses in the Code of Conduct. It was agreed that the Code of Conduct should refer to practitioners throughout while still being clear that these requirements were expected of expert witnesses too. The benefit of having one simple Code of Conduct that covered everyone involved in forensic science was discussed, and it was agreed that they should be re-worded to clarify that all roles within the forensic science chain are covered by the code.

**Action 2: Forensic Science Regulation Unit (FSRU) to update the Code of Conduct to refer to practitioner throughout and make it clear the code covered all roles within forensic science.**

5.5 It was queried whether practitioners would appreciate the full scope of requirements that applied to them or just those with which they were familiar. It was discussed whether part 10 of the Code of Conduct should refer to the Regulator's Code of Practice, rather than to 'quality standards'. It was countered the Code of Conduct would apply to a broader range of scientists that may have different codes of practice (or equivalent), however reference to the Statement of Standards and Accreditation Requirements for all forensic units providing forensic science services at the start of the Codes would be appropriate.

5.7 The FSRU welcomed any further comments from the QSSG on the proposed changes to the Code of Conduct.

**Action 3: QSSG members to provide feedback on proposed changes to the Code of Conduct within three weeks.**

## **6.0 Statement Declarations**

6.1 The Part 19B amendment of the CPD required a series of declarations to be included in the expert's report. This was to ensure compliance with the provisions of Rules 19.4(j) and 19.4(k) of the Criminal Procedure Rules (CrimPR). The introduction of the list of declarations raised questions about the wording of the declarations to be made.

6.2 QSSG members were presented with a paper for discussion that included the current declarations set out in Part 19B (Annex 1), the Academy of Experts Code of Practice (Annex 2), and a proposed set of declarations to comply with Part 19B and to take account of potential issues identified by the FSRU (Annex 3). In addition, a restricted and simplified set of declarations was presented for possible incorporation at the start of expert's report (Annex 4).

6.3 The attention of the group was brought to Annex 3, as a clear and comprehensive set of declarations was essential. QSSG members were asked to identify if any relevant case law had been missed.

6.4 It was discussed whether Streamlined Forensic Reports (SFR), issued when forensic evidence was undisputed in court, would need to also make reference to the modified declarations. The FSRU has contacted the relevant parties in regard to this.

6.5 The group debated whether to remove any references to expert witnesses from the Code of Conduct (Section 5.0) and instead use the Part 19B declarations for such experts. The rationale for separating the two included that expert witnesses appeared in the courtroom, whilst other practitioners who did not appear in Court could be covered separately by the Codes of Conduct. There was consensus that all members of the forensic science community needed to be aware of and adhere to the highest standards. It was agreed that the wording for both documents needed further consideration (refer to Actions 3 & 4).

**Action 4: QSSG members to provide feedback on the proposed statements of declarations within three weeks.**

## **7.0 Data Integrity**

7.1 The group were informed about a recent incident where staff at a Forensic Science Provider (FSP) had manipulated data to give the impression the data had met quality control standards, when it did not. The Regulator asked the group what measures could be taken to ensure quality standards were maintained and malpractice detected.

7.2 The Regulator had sent a letter to all FSPs and Police Forces asking them to ensure all their staff were aware of the importance of quality data and the seriousness of data manipulation.

7.3 The Regulator was investigating the possibility of adding an anonymous reporting function to her website to facilitate whistle blowing, although it was made clear all reports would be assessed fully before being actioned. The Regulator noted that in the Public Interest Disclosure Act 1998 the Regulator was not formally named as someone to whom qualifying disclosures could be made, and was currently working towards changing this.

**Action 5: The secretariat to investigate the option of adding an anonymous reporting function to The Regulator's GOV.UK website.**

7.4 Members heard that it was difficult to identify data manipulation during visits by the UK Accreditation Service (UKAS), and therefore it was incumbent on FSPs to undertake internal critical assessment of data. UKAS would continue to ask questions of FSPs in this regard.

7.5 The Regulator informed the group that the Medicines and Healthcare Products Regulatory Agency (MHRA) has published guidelines on data integrity, including a definition of data governance as '*The sum total of arrangements to ensure that data, irrespective of the format in which it is generated, is recorded, processed, retained and used to ensure a complete, consistent and accurate record throughout the data lifecycle*'. The Regulator suggested using some of the information in these guidelines to inform the next version of the Codes of Practice. It was agreed any incorporation of new guidelines should be carefully managed.

**Action 6: The secretariat to circulate the MHRA guidance document on data integrity to QSSG members.**

7.6 The group put forward the view that management within FSPs needed to understand how data was generated and verified. Vertical audits were proposed as useful tools for enhancing data integrity, including going right back to the raw data. Such audits could also help identify potential weaknesses in the management and analysis of data, although it was agreed it was hard to identify a person who was both unethical and highly skilled. It was thought that often integrity might be assumed by management based on cultural norms within the scientific community. However, it might be that new staff were not fully aware of this culture and their obligations. It was highlighted that the behaviours of embedded staff were also important, as was making sure individuals understood and appreciated their contribution to the Criminal Justice System.

7.7 The underlying causes of malpractice were discussed. Financial gain was acknowledged as a common underlying cause, which could include pressure from management for increased staff productivity. It was cautioned that increased regulation in forensic science should not unintentionally provide an incentive for cutting corners. The group discussed that risk of malpractice must be addressed proportionally. Blind trails were considered but the group heard how difficult these could be to implement.

## **8.0 Automated Footwear Coding Project**

8.1 The Regulator invited QSSG members to discuss an update on a pilot project by the Metropolitan Police Service (MPS) which would semi-automate or assist the coding of footwear in custody suites. At the previous QSSG meeting the group discussed whether

assisted coding should be exempt from accreditation. Preliminary data from the pilot study was now available.

8.2 The group heard that the study had been performed in a MPS custody suite equipped with a walk-on footwear scanner. In total 1011 scans were conducted, of which 55% could be coded in this way, with 43% of footmarks correctly identified against the footwear database. Of the footwear marks that could not be coded by the machine, forensic practitioners could code the majority of remaining cases. The screening in the custody suite was very rapid, taking around 10 minutes. Of the 1011 scans, 258 produced a link to other offences. In total 3 sanctioned detections<sup>1</sup> were agreed based on these data, however information on the number of arrests made or charges brought were unavailable at the time of the meeting. This was a major information technology (IT) project, and required a significant amount of extra resources. The Home Office was very supportive of the project. Members of the QSSG were invited to discuss if automatic footwear coding such as that used in this project should be accredited.

8.3 There was an error rate of 10% in those instances where coding was assigned, which was to be expected given the subjective nature of footwear coding. These errors would contribute to the false positive matches to marks recovered at crime scenes and missed potential matches (false negatives), and were identified as the biggest risk in the project. During the pilot these errors were identified through assessment by forensic practitioners, however once rolled-out, forensic practitioners would not be checking all the output of the assisted coding. The group debated whether uploading of this false data into the system makes the database increasingly inaccurate. Members heard that these results were not being incorporated into a reference set, although these false positive matches that would occur must be considered in terms of the effect they may have on public confidence in this technique. [Clarification received post meeting indicated that any shoeprints coded in this way remained marked up on the system as unverified until a forensic practitioner had reviewed and confirmed the coding].

8.4 In terms of accreditation, the main difference between this project and other footwear screening was considered to be the automation. It was therefore suggested accreditation should be possible, although the low level of competence a semi-automated approach tends to require might be a hurdle for a competence based standard such as ISO17025 and the multi-site accreditation that would be required might be problematic and costly. Also, due to the early stages of the technology, accreditation might identify that the error rate invalidates the technique before it is off the ground. The Regulator highlighted that the QSSG could have a role in helping improve this technique. Police representatives emphasised the benefits this technology could bring, for example in relation to crimes such as burglary. Consequently, the Regulator asked members to put thought into this issue and provide feedback.

**Action 7: QSSG members to provide feedback on options and recommendations in relation to the accreditation for automatic footwear coding.**

**Action 8: FSRU to produce a paper on automated footwear coding, based on QSSG feedback, for consideration by FSAC.**

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<sup>1</sup> Sanctioned detections: cases resolved by the police

## **9.0 Infrequently Used Methods & Occasional Experts**

9.1 Clarification was provided on the difference between infrequently used methods and occasional experts. Infrequently used methods were described as forensic practices that were performed relatively rarely, whilst occasional experts were experts in a niche forensic area that was often not their full time job. The group heard that it was difficult to apply accreditation to infrequently used methods and occasional experts, however both had validity in forensic science. Both of these areas required further guidance from the Regulator.

9.2 The group heard that the Code of Practice required expansion in relation to infrequently used methods, as references to such methods as being out of scope may have inadvertently discouraged their use, which was never the intention. Members were presented with a draft text for the Code of Practice in relation to infrequently used methods and asked for feedback. Members considered this addition to be a useful update, however what constituted 'infrequent' was discussed. It was debated whether a specific number should be referred to in order to give clearer guidance, or if the assignment of a number was arbitrary and might affect whether FSPs decided to perform such methods (e.g. if exceeding the limit meant accreditation was required). It was suggested very general guidelines should be used if a definition of infrequent was required.

9.3 It was confirmed that infrequently used methods should be validated, as already stated in the Codes. Flexible accreditation scopes for institutions were discussed, however these required a large degree of confidence in the institution and a large amount of work for UKAS.

9.4 A paper on occasional experts was presented to the QSSG for further comment.

9.4 It was agreed neither issue was straightforward and QSSG members were invited to provide feedback on both following the meeting.

**Action 9: QSSG members to provide feedback on the proposed addition to the Codes relating to infrequently used methods within two weeks.**

**Action 10: QSSG members to provide feedback on guidance relating to occasional experts within two weeks.**

**10.0 AOB & Date of the Next QSSG Meeting**

10.1 The following AOB item was raised:

*Publicising the role of the FSR amongst barristers*

10.2 The QSG heard that the Regulator gave a lecture for the Criminal Bar Association at the Old Bailey. The Regulator outlined some of the questions barristers should ask of forensic scientists. There was a large audience, including some Old Bailey judges, and the talk was well received.

*Date of next QSSG meeting*

10.3 The next meeting of the QSSG would be 4<sup>th</sup> July 2017.



**Annex A****Present:**

Gill Tully	Forensic Science Regulator (Chair)
Jeff Adams	Forensic Science Regulation Unit
Ashley Beaumont	Centre for Applied Science and Technology, HO
Stephen Bleay	Centre for Applied Science and Technology, HO
Emma Burton-Graham	HO Science Secretariat
Craig Donnachie	Scottish Police Authority Forensic Services, Scotland
June Guinness	Forensic Science Regulation Unit
Martin Hanly	LGC Forensics
Glyn Hardy	Legal Aid Agency
Anya Hunt	The Chartered Society of Forensic Sciences
Simon Iveson	Forensic Science Regulation Unit
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
Karen Smith	Thames Valley Police
Kevin Sullivan	Independent
Thomas Vincent	HO Science Secretariat

**Apologies:**

Mark Bishop	Crown Prosecution Service
Glyn Hardy	Legal Aid Agency
Anthony Heaton-Armstrong	Criminal Bar Association
Peter Harper	Orchid Cellmark Ltd
Jane Higham	Glaisyers Solicitors
Steve Lyne	Dorset Police
Matthew Marshall	British Standards Institute
Nigel Meadows	Coroners Society, England & Wales
Ewen Smith	Criminal Cases Review Commission
Jo Taylor	College of Policing