



Forensic Science Regulator

Interpretation Specialist Group (SG)

Note of the meeting held on 18 September 2023 in Birmingham and online via videoconference

1. Welcome, and introductions

- 1.1. The chair welcomed all the members to the first meeting of the interpretation specialist group (SG). A list of attendees by organisation is available at Annex A.
- 1.2. The Chair noted it was expected that the membership of the SG would increase as work progressed.
- 1.3. Members introduced themselves, outlining their background and experience.

2. Introduction to Interpretation SG work

- 2.1. The Chair outlined the expected workplan for the Interpretation SG acknowledging several phases of work were expected. In the first instance, the group would work to review the update of the non-statutory guidance, “Development of Evaluative Opinions” (FSR-C-188 Issue 1), to support the Forensic Science Regulator in the publication of statutory guidance (to be issued under section 9 of the Forensic Science Regulator Act 2021).
- 2.2. The workplan and approach were agreed.
- 2.3. The group reviewed the draft terms of reference, no objections were raised, and the terms of reference were agreed.

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3. Review of current guidance and Forensic Science Activities (FSAs)

3.1. Led by the Chair, the group reviewed each of the FSAs described in the Forensic Science Code of Practice (issue 1) and discussed the types of interpretation which would be expected for each activity. The conclusions are summarised in the table below.

Number		Name	Interpretation Activities
Incident examination			
INC	100	Incident scene examination	Investigative, Evaluative
INC	101	Collision investigation	Evaluative
INC	102	Examination of fire scenes	Investigative, Evaluative
INC	103	Examination to establish the origin and cause of an explosion	Investigative, Evaluative
INC	200	Forensic examination of detainees	Investigative
INC	201	Forensic examination of deceased individuals	Investigative, Evaluative
Biology			
BIO	100	Forensic examination of sexual offence complainants	Investigative
BIO	200	Human biological material examination and analysis	Investigative, Evaluative
BIO	201	Non-human biological examination and analysis: vertebrates	ACTION 1: Chair to speak to colleagues at Kings College London regarding interpretation activities for BIO 201
BIO	202	Non-human biological examination and analysis: plants, microbes and invertebrates	ACTION 2: Chair to speak with colleagues at the National History Museum regarding interpretation activities for BIO 202
BIO	300	Human body fluid distribution analysis	Investigative, Evaluative
BIO	400	Human DNA analysis	Investigative, Evaluative

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Number		Name	Interpretation Activities
BIO	401	Human kinship analysis	Limited evaluation required for kinship analysis
BIO	500	Taggant analysis	ACTION 3: Chair to speak to colleagues at Kings College London regarding interpretation activities for BIO 500
Drugs, toxicology and noxious materials			
DTN	100	Toxicology: analysis for drug(s), alcohol and/or noxious substances	Analytical
DTN	101	Toxicology: analysis for drugs and alcohol under the Road Traffic Act 1988, Transport and Works Act 1992, and Railways and Transport Safety Act 2003	Analytical
DTN	102	Toxicology: analysis for drugs in relation to s5A of the Road Traffic Act 1988	Analytical (specifically analysis against a legal limit)
DTN	103	Examination and analysis to identify and quantify controlled drugs and/or associated materials	Analytical
DTN	104	Toxicology: alcohol technical calculations	ACTION 4: Chair to speak to colleagues regarding interpretation activities for DTN 104
DTN	105	Examination and analysis relating to the preparation and production of drugs and/or psychoactive substances	ACTION 5: AFSP representative to speak to colleagues regarding interpretation activities for DTN 105 and 200
DTN	200	Examination and analysis of corrosives and/or noxious substances	
DTN	300	Examination and analysis of residues of lubricants used in sexual offences, including oils, greases and lubricants	ACTION 6: AFSP representative to speak to colleagues regarding interpretation activities for DTN 300

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Number		Name	Interpretation Activities
DTN	400	Examination and analysis of ignitable liquids and their residues	Analytical. Occasionally evaluative interpretation but this is usually at scene.
DTN	500	Examination and analysis of chemical and/or biological agents and associated materials	ACTION 7: Chair to speak to colleagues at the Defence Science and Technology Laboratory (DSTL) regarding interpretation activities for DTN 500, 501, 502 and 503.
DTN	501	Examination and analysis of explosives, explosives precursors and explosive residues	
DTN	502	Examination and analysis of radioactive material	
DTN	503	Examination and analysis of suspected explosive devices and associated material	
Marks, traces and pattern			
MTP	100	Friction ridge detail: visualisation and enhancement	Not applicable
MTP	101	Friction ridge detail: comparison	Currently a categorical opinion is given.
MTP	200	Footwear: coding	Analytical
MTP	201	Footwear: screening	Investigative
MTP	202	Footwear mark comparisons	Evaluative (can be categorical however, there is movement away from this approach).
MTP	300	Marks visualisation and enhancement	Not applicable
MTP	301	Marks comparison	Evaluative
MTP	400	Damage and physical fit	Investigative (can be evaluative)
MTP	500	Examination and analysis of particulate trace materials	Evaluative
MTP	600	Examination and analysis of gunshot residue (GSR)	Evaluative

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Number		Name	Interpretation Activities
MTP	601	Examination, analysis and classification of firearms, ammunition and associated materials	Analytical
MTP	602	Firearms: ballistics	Typically, categorical approach is taken (this can be evaluative and investigative).
MTP	700	Document handwriting	Evaluative (can be categorical)
MTP	701	Document authenticity and origin	Evaluative, Investigative
Digital			
DIG	100	Data capture, processing and analysis from digital storage devices	ACTION 8: OFSR representative to speak to colleagues regarding interpretation activities for DIG 100
DIG	101	Analysis of communications network data	Not applicable
DIG	102	Digital network capture and analysis	ACTION 9: OFSR representative to speak to colleagues regarding interpretation activities for DIG 101
DIG	200	Cell site analysis for geolocation	Investigative. The approach is inconsistent and is heading towards use of evaluative.
DIG	300	Recovery and processing of footage from closed-circuit television (CCTV) /video surveillance systems (VSS)	Analytical
DIG	301	Specialist video multimedia, recovery, processing and analysis	alytical/Investigative
DIG	400	Technical audio operations	Not applicable
DIG	401	Speech and audio analysis	There is a move towards the evaluative approach
Case and data management			
CDM	100	Case review	Case review involves many different areas.

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Number		Name	Interpretation Activities
CDM	200	Control and management of a forensic database service	Control and management of a forensic database service involves many different areas.

3.2. During review of the FSAs the following additional issues were raised:

- The output of collision investigations often differs between coronial and criminal courts.
- Regarding the examination of the deceased, it was raised that it often occurs where firearms experts attend post-mortems, and it is typical that a fire investigator will attend fatal fires and provide insight using the evaluative approach.
- Terminology used will need to be carefully considered as will the extent to which an explanation is insisted upon.
- Development of guidance should consider likely future changes to interpretation, particularly the increasing use of machine learning.

ACTION 10: OFSR representative to identify a representative from the DTN specialist group to join to the interpretation SG.

3.3. The group discussed existing challenges which could be addressed and resolved in the publication of guidance. The issues raised are summarised below:

- Activity level DNA propositions being addressed with the same statistics as source level propositions. It was noted this often resulted in misleading situations within courts and also that while this was addressed in C-118 guidance document issued by the previous Regulator, the general practice was not followed as per existing documentation. It was agreed that the guidance should provide a recommendation what a scientist could do when there is no comment.
- Inclusion of DNA mixtures which cannot be statistically evaluated being included within evidential statements. The evidence may eventually be

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regarded by the defence as neutral, but, prior to that, inclusion within the evidential statements may cause guilty pleas.

- Reproducibility was discussed as a current challenge, with varied opinions often reached using the same set of results. It was noted that there were methods to establish a reproducible range.
- The use of interpretation/evaluation within collision investigations was not consistent across the various forces. It was also noted that collision investigators were often required to produce final outputs combining a range of information.
- Fire services were disparate and so it was challenging for the area to be seen as a single discipline. Overreach by investigators was often observed. The representative for fire investigation commented it would be beneficial for working practices to be contained within a single framework.
- Within firearms investigations the number of cases was too limited for confidence to be established in the use of the likelihood ratio.
- Handling bias. Role related bias may occur when moving from investigative to evaluative method.

3.4. The approach to development of the statutory guidance was briefly discussed.

- Drafting the guidance as if it were a legislative instrument would support identifying where detailed explanation would be required.
- It would be necessary to consider what was already described within the criminal procedure rules.
- The approach, as per the Forensic Science Regulator's intentions, would be to develop guidance that was as detailed as possible without setting any requirements. It was anticipated the guidance developed by this group would be overarching with discipline specific guidance developed at a later date. Examples would be applicable to discipline specific guidance.

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- The guidance would need to strike a balance between being a series of high-level principles and being usable by practitioners.
- The group agreed that the guidance should be carefully drafted, acknowledging possible implications of a document describing best practice being used in court. The representative from the Bar Council noted that it would be anticipated a scientist would be questioned on why they have not worked within the parameters of the guidance and potentially asked to declare this.
- It was discussed that there could be a risk of guidance being too prescriptive, it should be considered how end-user perception could be referenced in the guidance.
- The group agreed that auditable processes would be expected.
- The most robust/appropriate method for determining the likelihood ratio should be considered for each discipline.
- It was discussed who would be responsible for setting the parameters for proficiency and/or competency testing.

3.5. The representative from the Bar Council provided an example to the group to outline the importance of reporting and the need for sufficient lead time for comprehensive reporting. It was noted resourcing is often a problem.

4. Next Steps

4.1. Chair summarised the possible next steps. These are identified in the actions below.

ACTION 11: Chair and OFSR representative to develop and share high level guiding principles to share with the group for comment.

ACTION 12: Members of the Interpretation SG to provide comment on which FSAs could be grouped together to develop discipline specific guidance.

5. Any Other Business

5.1. A representative from the Association of Forensic Service Providers questioned whether within FSA CDM 100, when an old case requires a new opinion and

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new assessment by defence examiner, would the activity fall into FSA BIO 300, for example. The OFSR representative agreed to pick this up with the Forensic Science Regulator.

ACTION 13: OFSR representative to speak with the regulator regarding the approach that will be taken when an old case requires a new opinion.

- 5.2. The date for the next meeting was agreed. This was to be in person.

Annex A – Meeting Attendees

Representatives present:

In person

Chair

Two representatives from Association of Forensic Service Providers (ASFP)

Bar Council

Two representatives from Chartered Society of Forensic Science (CSFS)

Legal academic

Royal Statistical Society (RSS)

Digital Forensics Specialist Group

Firearms Specialist Group

Office of the Forensic Science Regulator

Home Office Science (secretariat)

Online

United Kingdom Accreditation Service (UKAS)

Digital Forensics (policing)

Chartered Society of Forensic Science (CSFS)

Royal Statistical Society (RSS)

Biology Specialist Group

Medical Forensics Specialist Group

Incident Examination Specialist Group (scenes)

Incident Examination Specialist Group (collision investigation)

Incident Examination Specialist Group (fire investigation)

Apologies received

Fingerprint Specialist Group

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ACTION 1: Chair to speak to colleagues at Kings College London regarding interpretation activities for BIO 201

ACTION 2: Chair to speak with colleagues at the National History Museum regarding interpretation activities for BIO 202

ACTION 3: Chair to speak to colleagues at Kings College London regarding interpretation activities for BIO 500

ACTION 4: Chair to speak to colleagues regarding interpretation activities for DTN 104

ACTION 5: AFSP representative to speak to colleagues regarding interpretation activities for DTN 105 and 200

ACTION 6: AFSP representative to speak to colleagues regarding interpretation activities for DTN 300

ACTION 7: Chair to speak to colleagues at the Defence Science and Technology Laboratory (DSTL) regarding interpretation activities for DTN 500, 501, 502 and 503

ACTION 8: OFSR representative to speak to colleagues regarding interpretation activities for DIG 100

ACTION 9: OFSR representative to speak to colleagues regarding interpretation activities for DIG 101

ACTION 10: OFSR representative to identify a representative from the DTN specialist group to join to the interpretation SG.

ACTION 11: Chair and OFSR representative to develop and share high level guiding principles to share with the group for comment.

ACTION 12: Member of the Interpretation SG to provide comment on which FSAs could be grouped together to develop discipline specific guidance.

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