Alere Forensics – written evidence (FRS0016)

Questions
1. Is forensic science contributing to the delivery of justice in the UK?

Forensic Science makes considerable contributions to the delivery of justice in the UK through the analytical and interpretive services provided by a wide variety of dedicated and experienced personnel. Such individuals are devoted to the roles they fulfil and all work towards a common aim which is to provide assistance to those who require it.

2. What are the current strengths and weaknesses of forensic science in support of justice?

The current strengths of any forensic service provider (FSP) are primarily based around the staff involved, their values, and their integrity, while they strive to provide the best and most appropriate service they can with the tools provided. In addition, some synergies between FSP’s have been developed to ensure the widest level of support is deliverable for complex casework.

The chief weakness is associated with current lines of communication between purchaser and provider not being as effective as they could be. This leads to confusion around what needs to be undertaken, whether this is appropriate based on circumstances, or even possible with the material available. This is key to obtaining the right outcome in the shortest timeframe. Resultant delays in work being reported leads to frustration for all involved.

Furthermore, the recent trend to concentrate on cost rather than quality with respect to tenders has resulted in an ever-decreasing level of funding associated with increasing pressure for rapid result generation. This is not a sustainable position for the FSP’s and has been evidenced recently by KFS having to cease working in this environment with the resultant requirement for emergency funding to clear existing caseloads. This will also inevitably lead to problems with succession planning and service sustainability moving forward.

Understanding and use of Forensic Science in the Criminal Justice System
3. What is the scientific evidence base for the use of forensic techniques in the investigation and prosecution of crimes? Are there any gaps in that evidence base?

The evidence base for forensic techniques comes from peer reviewed research directly relevant or allied to the application to the casework examinations. Moreover, the frequent audit of personnel by professional bodies, and process by internal and external assessors, aims to maintain the fitness for purpose of these techniques. Moving forward, the lack of appropriate research due to lack of financial support and staff resource may result in the evidence base not being able to maintain pace with developments and a perception of the level of support declining.
4. How can the Criminal Justice System be equipped with robust, accurate and transparent forensic science? What channels of communication are needed between scientists, lawyers and the judiciary?

There may be some level of misunderstanding due to barriers of communication between parties but the CJS is provided with robust, accurate and transparent forensic science. This highlights the need to improve the level of interaction between those involved with investigations through whatever means. Electronic lines of communication are (usually) convenient, expedient and provide traceability, but emails can be misinterpreted and lead to, rather than resolve, confounding issues. The most effective form of communication is a face-to-face meeting to ensure understanding, however, a simple telephone conversation can effectively discuss and address any issue in a matter of minutes to the satisfaction of everyone.

Greater use of video-conferencing should be seen as a viable way forward, if / wherever available. This channel may also serve to support those involved in a particular case, especially with respect to expert witness testimony. Forensic Scientists are often called to attend Court, potentially at a distant location which takes time and considerable expense to deliver (travel and accommodation costs), only to be told on arrival that they are no longer required. This waste of resource could simply be overcome by wider provision, acceptance, and use of video-conferencing.

5. What is the level of understanding of forensic science within the Criminal Justice System amongst lawyers, judges and juries? How can it be improved?

Understanding the breadth of forensic science specialities combined with the increasing use of more complex techniques and processes to extract the maximum amount of useful data from a limited submission in the shortest timeframe is a challenge. More case conferences prior to Court Hearings involving all parties to discuss any areas of concern may be an effective way to overcome this issue. In addition, by using this approach, expert testimony could be debated and agreed which may negate the calling of expert witnesses. If a Court appearance is still required for further clarification, the language and terminology employed to describe the evidence needs to be simplified to the level that can be understood by non-scientific personnel irrespective of the level of knowledge of other people in Court. This may involve graphical presentations as well as verbal descriptions.

6. Is the current training available for practitioners, lawyers and the judiciary appropriate?

The science behind forensic service provision is complex and discipline specific. Therefore, the knowledge and understanding required not only to be able to follow discussions, but also challenge areas thought not to have been fully addressed, will be difficult for those not routinely engaged with the area in question. Hence the requirement for expert witnesses. FSP’s may offer training in their specific branch of forensic science, but to maintain such knowledge would require regular attendance on training courses which is not practical. Pre-hearing case conferences should facilitate raising the knowledge and understanding of all parties to an appropriate level for the case being considered, and may be the most productive mechanism to address this point.
Standards and regulation

7. Is the current market for forensic services in England and Wales sustainable? Are changes needed to ensure forensic science provision is maintained at the level required? What are the risks of a market approach, for example what happens if a provider goes out of business? And what is the impact on quality?

No. For forensic science to continue to be delivered moving forward, there needs to be a thorough review of what needs to be provided, what is an appropriate timeframe, how such work is to be costed, and how the service tendered is reviewed. There will always need to be a financial review of any bids received but there should also be a review of quality and sustainability of service provision prior to any award. It may be appropriate to have some scientific input into the tendering writing process as well and review of responses by someone impartial but with a level of understanding of the relevant science.

The current market approach has seen a provider go out of business, together with the subsequent service provision difficulties and cost implications. Continued pressure on existing FSP’s could have the same deleterious effect or, on the basis of financial viability / risk to the existing business, there may be no respondents to tenders, or such responses may only be for part of the services requested.

Quality is integral to the service and implicit in those working in the field of forensic science. Such individuals, and organisations, would probably rather turn away from acceptance of work than compromise their own and their corporate quality standards. There may be pressure to “cut corners” and risk compromising quality to save time and money, but this is likely to be resisted at every juncture by those employed in this discipline. Quality should therefore be considered as a key aspect of any future tender response reviews.

8. Is the system of accreditation working successfully to ensure standardised results and the highest quality analysis and interpretation of significance of evidence?

Yes. Although considered by some to be a snapshot review of overall service provision, the performance of both horizontal and vertical audits at all assessments are very thorough. Linked to individual and corporate integrity with respect to disclosure of any known issues, and regular dialogue with UKAS, the system is robust. However, it should be taken into account that there is a current shortage of suitably trained and experienced assessors in this area, and that making changes to implement improvements takes time.

9. What role should the Forensic Science Regulator have? If the Forensic Science Regulator is to have statutory powers, what should these be?

The Forensic Science Regulator should have the necessary power to drive quality through all aspects of service provision. Statutory powers would enable the Regulator to hold people accountable, ensure that quality is integral to both FSP’s and those developing tenders, perform investigations of any breaches of Codes of Conduct and Performance, and put R&D into a more prominent position across all forensic disciplines.
10. What lessons can be learned from the use of forensic science in Scotland and Northern Ireland? What can be learned from the use of forensic science overseas?

Evidence of best practice needs to be more widely shared between FSP’s through professional bodies and scientific meetings. In this way recognition of the development and delivery of any advancements can be obtained, but all can benefit from the dissemination of knowledge and experience. It should be recognised that such information may improve processes without necessarily compromising commercial sensitivities.


Whilst acknowledging the contribution of forensic science to crime reduction figures, the Strategy reported the dramatic decline in spending on forensics by 18% from 2009/10 to 2015/16, a drive for Police forces to take on service provision themselves, and an increasing demand for yet further savings to be made. The impact of these driving forces could be said to have been evidenced by recent issues in the forensic science market.

It also proposed that the Forensic Science Regulator be given statutory powers and that investment in research must continue. However, the Regulator is yet to be given such powers and cost pressures currently being experienced by FSP’s have resulted in a decline in R&D.

**Forensic Science research landscape**

12. How should further research funding for forensic science be justified? What should be the focus of such research? What is the role of UK Research and Innovation, especially considering the interdisciplinary nature of much forensic science?

Without research, advancements in both the science and delivery of services will stifle. Innovation is not the result of “business as usual” approaches but through the provision of time and financial support for on-going audit and review of modern technology and workstream processing.

Research should result in smarter working and lead to greater returns on investment which can then be reallocated to R&D budgets but, in the current economic climate, needs external pump priming. The current pressure on FSP’s in terms of resources available (ever increasing demands on both funding and staffing) has seen a marked reduction in the ability to perform any research.

13. Where are the gaps in research and understanding of forensic science? How and by whom should the research questions be articulated to fill these gaps?

Such questions can only be answered by those empowered to support and implement projects in their respective areas of FSP. As such, it is these individuals who should articulate their individual areas of concern. All FSP’s are aware of areas that could be improved by innovation but the ability to undertake such work has been, and continues to be, compromised by the lack of resources. Potentially there could be made available opportunities to “bid” for monies to pump prime R&D projects from a specific central source. Such bids could be...
considered on the basis of the needs and perceived outcomes of the application of derived innovations.

14. How can a culture of innovation in forensic science be developed and sustained?

There is already a culture of innovation in forensic science as evidenced by the continued delivery of service provision in a challenging financial environment. It is the sustainability of such developments that is becoming increasingly questionable. Without the external recognition of this position, and appropriate support, this situation is likely to become acute and business decisions regarding resource allocation may overtake the importance of such work.

15. Are there current or anticipated skills gaps? Who should have responsibility for and/or have oversight of training?

Yes. There is currently an acknowledged shortage of experienced staff working in this very demanding and specialist scientific discipline which is already impacting on the ability of FSP’s to deliver services. In addition, the training of staff to a point where they can provide such services as independent practitioners takes many years to complete.

Appropriate training of staff can only effectively be delivered in a vocational manner by employers since undergraduate academic courses are, by default, generic in nature. Whilst some postgraduate academic research driven courses may be linked to commercial organisations, demands on oversight and technology without the potential to retain the intellectual property developed (or the staff being trained) leads to reticence to progress such work.

It should be recognised that the time and resources allocated to training by employers is a constant source of concern since not all “trainees” can be retained within the host organisation. Some will inevitably migrate to other FSP’s, whilst others will leave to work in less demanding professions during their training. In addition, there is an unrealistic expectation of graduates coming in to the profession regarding the length of training programs and the salaries associated with the roles. Universities and FSPs need to work more closely to educate students before they begin entering the working world.

Author: Dr Steve George, Head of Forensics UK, Alere Forensics

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