

**Medical mistakes and miscarriages of justice:
Perspectives on the experiences in England and Wales**

Kathryn Campbell and Clive Walker*

A Introduction

Errors made by pathologists reporting in criminal cases on sudden deaths of infants have resulted in serial miscarriages of justice in the United Kingdom. These types of mistakes are exceptionally grievous for bereaved families, for the credibility of experts, and for the standing of the justice system itself. Conclusions presented by experts at trial are often cloaked in dense scientific language which serves to imply that such results and testimony are factually unassailable, but in reality, these conclusions have been found to be interpretations affected by subjective inferences and shoddy case construction. Despite the high costs of such errors, the problem of miscarriages of justice has persisted, for various reasons. Contemporary developments in sciences, particularly forensic sciences, have resulted in an increase in appearances by experts before the courts and a growing pressure to seek out forensic evidence. In some cases, experts have become not only notable figures in their profession, but also renowned witnesses, appearing in one case after another, with their evidence becoming more irrefutable as time passes.

The focus of this paper is an examination of the designation and work of medical experts, how they relate to courts in England and Wales, and the impact of their testimony on convictions. This survey will include an overview of how these types of experts are so designated by various regulatory bodies and how the limits of their expertise are determined. It is necessary to consider how both prosecution and defence

* Kathryn M. Campbell, Associate Professor, Department of Criminology, University of Ottawa, Ottawa, Ontario, Canada K1N 6N5, Kathryn.Campbell@uOttawa.ca and Clive Walker, Professor in Criminal Justice Studies, University of Leeds, Leeds LS2 9JT, UK, law6cw@leeds.ac.uk.

lawyers seek to employ their own forensic experts and how the courts referee forensic disputes, both pre-trial and at trial, and indeed act as gatekeepers in terms of what counts as an “expert” and what counts as “expertise.” Equally important is the impact of expert testimony on juries, whether they are equipped to pass verdicts on scientific disputes, and how the courts can help them in that task. It is also necessary to consider interrelationships between legal processes that produce verdicts upon experts, including the condemnation of their errors, and the processes which review legal or professional error. The foremost cases that can illustrate the roles of experts, such as the leading pediatrician Professor Sir Roy Meadow, and their forensic and professional implications, are those of Sally Clark and Angela Cannings. A review of those cases will also allow consideration of the specialized procedures in England and Wales that handled the response to the findings of miscarriage of justice in those cases, including the Attorney General and the Criminal Cases Review Commission. As well as the individual cases dealt with through these official channels, independent and official inquiries have been convened, and their findings should also be taken into account.

The controversy has principally revolved around sudden unexplained deaths, from unexplained causes, of apparently well babies aged from birth to two years (also known as Sudden Infant Death Syndrome (SIDS) or cot death). SIDS was first accepted as a certifiable cause of death in 1971.¹ In the United Kingdom, about 300 babies die of it each year. It is the leading cause of death in babies between the ages of one to twelve months; in 1997, 27% of post-neonatal infant death was attributed to SIDS.² Estimates suggest that deliberate action by a parent or carer is a probable contributory factor in about 14% of deaths registered as sudden unexplained death.³

¹ David Armstrong, “The invention of infant mortality” (1986) 8 *Sociology of Health and Illness* 211.

² See Peter Fleming *et al.*, *CESDI/SUDI Report 1993-1996: Sudden Unexpected Deaths in Infancy* (Stationery Office, London, 2000).

³ See *ibid.*, p. 126. A higher figure is estimated in other studies: Roy Meadow, “Unnatural sudden infant death” (1999) 80 *Archives of Diseases in Childhood* 7; Michael Green, “Time to put ‘cot death’ to bed” (1999) 319 *British Medical Journal* 697. Compare Sylvia Limerick, “Not time to put ‘cot death’ to bed” (1999) 319 *British Medical Journal* 697.

B Experiences with forensic pathology and expert witnesses

Personnel

Suspicious or unusual death investigations in England and Wales routinely engage a number of professionals, including forensic medical examiners (FMEs, formerly known as police surgeons), pathologists, and coroners. FMEs are likely to undertake the first level of involvement in a death investigation. Their overall job involves a variety of forensic and non-forensic tasks, including: determining the fitness of individual to be detained or interviewed, examining individuals involved in assaults (both police officers and detainees), psychiatric assessment, investigation of sudden death, initial post-mortem examination, and attending court.⁴ Though they may be involved in a large number of tasks, very few work full time as forensic medical examiners. Instead, they are general practitioner physicians, contracted out to police forces, generally on a fee-for-service basis. This long-established practice may not secure the best standards of medical expertise in an era when forensic detection is becoming more complex, but at the same time, more essential to detection.⁵ Although police surgeons must be registered medical practitioners, a higher qualification, such as a diploma in medical jurisprudence or forensic medicine, may be desirable, but it is not required. The complexities of drug abuse and mental illnesses, commonplace amongst their police patients, also demand ever-higher standards of competence. Yet, most police surgeons have developed their expertise through practice and personal contacts, and so a lack of specialty may increase the potential for error.⁶ Block contracting with group practices has been introduced to improve the availability and range of expertise,⁷ but it has not markedly affected the degree of specialization.

⁴ Stephen Savage, Graham Moon, Kathleen Kelly and Yvonne Bradshaw, "Divided loyalties? The Police surgeon and criminal justice" (1997) 7 *Policing and Society*, 79.

⁵ Guy Norfolk, and Margaret Stark, "The future of clinical forensic medicine" (1999) 319 *British Medical Journal*, 1316.

⁶ See Graham Moon, Kathleen Kelly, Stephen Savage, and Yvonne Bradshaw, "Developing Britain's police surgeon service" (1995) 311 *British Medical Journal*, 1587.

⁷ See Audit Commission, *The Doctor's Bill: The Provision of Forensic Medical Services to the Police* (HMSO, London, 1998).

In the past, errors on the part of forensic medical examiners have contributed to notorious miscarriages of justice. One of the “Guildford Four,”⁸ Carole Richardson, was convicted of murder for a public housing bombing in 1974. Aside from the egregious errors made regarding the evidence used in this case, medication was administered to Richardson while she was in custody, without regard for the influence of other drugs she may have been taking, thereby possibly tainting her statements to the police.⁹ The case of Stefan Kiszko also involved forensic medical examiner error. In 1976, Kiszko was convicted of murdering Leslie Molseed and committing a sexual act on her body. Kiszko suffered from hypogonadism, and a semen sample taken from the crime scene could not possibly have come from him. Moreover, the test results were allegedly withheld by the police and prosecution. Kiszko was imprisoned until the Court of Appeal quashed his conviction in 1992.¹⁰ As a final example, Enghin Raghip was convicted of murdering a police officer in 1985, following the Broadwater Farm disturbances. Raghip confessed to the crime after being subject to a number of days of interrogation by the police. The FME had earlier pronounced him fit to be detained. Raghip’s conviction was eventually overturned in 1991 on the basis of the misdiagnosis of his mental capacity.¹¹ As these cases illustrate, errors can and do occur, particularly when FMEs do not respect the limits of their expertise, and especially when they are confronted with the ethical choices inherent in the many interlocking dualisms they must face: medical vs. legal (applying medical expertise within a legal context); therapeutic vs. forensic (acting as provider of medical care and as gatherer of evidence) and independent practitioner vs. employee of the police (confronted with competing loyalties).¹²

⁸ The “Guildford Four” (Carole Richardson, Paul Hill, Gerry Conlon and Patrick Armstrong) all received life sentences for murder for bombs placed in public houses in Guildford and Woolwich in 1974. Their convictions were quashed in 1989. See Sir John May, Report of the Inquiry into the circumstances surrounding the convictions arising out of the bomb attacks in Guildford and Woolwich in 1974, Final Report (1993-94 H.C. 449); Clive Walker, “Miscarriages of justice in principle and practice” in Clive Walker and Keir Starmer, *Miscarriages of Justice: A review of justice in error* (Blackstone, London, 1999).

⁹ See Gisli Gudjonsson and John MacKeith, *Disputed confessions and the criminal justice system*. Maudsley Discussion Paper No. 2, London Institute of Psychiatry (<http://admin.iop.kcl.ac.uk/maudsley-publications/maudsley-discussion-papers/mdp02.pdf>, 1997).

¹⁰ Clive Walker and Keir Starmer, *op. cit.*

¹¹ *Ibid.*

¹² Stephen Savage, *et al.*, *loc. cit.* p. 79.

Forensic pathologists become involved in death investigations as practitioners who conduct autopsies and when the cause of death is suspicious or unascertained. The pathologist consulted to undertake the autopsy will likely be listed on the Home Office Registry of Forensic Pathologists.¹³ Pathologists are regulated by the Home Office Policy Advisory Board for Forensic Pathology, which was set up in 1991. Some are university professors, but about half are in the private medical sector and are thus not attached to institutions or hospitals. Forensic pathologists engage in individual service contracts with local police forces. The investigation of the sudden and unexpected death of an infant requires that the pathologist review not only the circumstances occurring immediately prior to the child's death, but also the child's previous medical, family, and social history, including past contact with the social service or justice system regarding issues of abuse and/or neglect.¹⁴ It would also be necessary to document any emergency care and resuscitative efforts, as attempts at resuscitation may themselves cause injury. In addition, a careful examination of the crime scene is necessary, as well as a post-mortem examination and analysis of laboratory findings (including bacteriological, histological and toxicological analyses), and certification of the cause of death by the attendant doctor.¹⁵ It is in the next stage, as expert witnesses in court, where forensic pathologists have encountered the greatest difficulties, due in part to the fact that when testifying in court, their frame of reference is based on medical opinion, itself based on complex data, whereas the lawyers seek to coax out a high level of legal proof and also, for the sake of the jury, simplicity.¹⁶

A further complication is that pediatric pathologists may be called to testify at both criminal court and family court.¹⁷ Aside from bearing in mind the lower standards of

¹³ <http://www.homeoffice.gov.uk/documents/ho-register-forensic-pathologist?view=Binary>.

¹⁴ See W. Sturmer "Sudden infant death syndrome: The Medical Examiner's viewpoint," in J. Dimmick, and D. Singer (eds.), *Forensic Aspects in Pediatric Pathology* (Perspectives in Pediatric Pathology, Vol. 19, Karger, Basel, 1995), p. 76.

¹⁵ *Ibid.*, pp. 76–84.

¹⁶ See Report of a Working Group convened by The Royal College of Pathologists and The Royal College of Paediatrics and Child Health, Sudden unexpected death in infancy (<http://www.rcpath.org/index.asp?PageID=455>, 2004).

¹⁷ See Ellen Fish, Leah Bromfield, and Daryl Higgins, "A new name for Munchausen Syndrome by Proxy: defining fabricated or induced illness by carers" (2005) 23 *Child Abuse Prevention Issues*

proof in civil cases,¹⁸ when presenting expert testimony in family court, pathologists must bear in mind what is perceived to be the best interests of the child, rather than liability or fault. Particularly, there are difficulties in connection with pre-litigation child protection conferences, given that a great majority of claims of child abuse are unsubstantiated.¹⁹ Problems arise with these proceedings, as there is often little differentiation between fact and opinion evidence, legally untrained individuals make decisions about placing children on the “At Risk Registry,” there is much confirmatory bias throughout the proceedings, and there is an absence of clarity as to who constitutes an “expert.” With testimony in criminal court, the foundational elements are different,²⁰ as are the stakes. In this forum, there is a higher burden of proof beyond a reasonable doubt and the presumption of innocence. It has been noted that doctors are not sufficiently trained in understanding the differences between the courts, nor do they understand the scientific foundation needed for expert testimony.²¹

In addition, there continues to be a shortage of available pathologists, due in part to a limited number of university departments offering this specialty concentration. In 2004, a Working Group convened by the Royal College of Pathologists and the Royal College of Paediatrics and Child Health made the following observation:²²

There is only one paediatric forensic pathologist in the country. Throughout the whole of England and Wales there are just 40 paediatric pathologists, which means that they are thin on the ground and often unavailable at the crucial time.

1, “...different legal proceedings, not only have different aims, but different rules of evidence, and different standards of proof” (p. 7).

¹⁸ Furthermore, the recent miscarriage of justice cases relating to sudden infant death do not appear to have had an impact on acceptable standards of proof for child protection cases, and they remain similar to those of civil proceedings requiring a lower burden of proof. See *Re U* [2005] EWCA Civ 52.

¹⁹ For example, at year end March 2004, out of 68,500 cases where there was initial suspicion of child abuse, only 37,400 were subjected to Child Protection Case Conferences, and following further investigation 31,000 were ultimately found to be unsubstantiated. See Charles Pragnell, “Child protection case conferences – or kangaroo courts?” (The Children Webmag, <http://www.childrenwebmag.com/content/view/207/, 2007>).

²⁰ See Report of a Working Group convened by The Royal College of Pathologists and The Royal College of Paediatrics and Child Health, Sudden unexpected death in infancy (<http://www.rcpath.org/index.asp?PageID=455, 2004>). p. 5

²¹ *Ibid.*, p. 5.

²² *Ibid.*, pp. 8–9

There should be a drive to increase those numbers but it has been recognized that negative media coverage is reducing the pool of paediatricians who will testify in court and particularly the number of trainees willing to enter paediatric pathology.

This shortage of forensic pathologists and pediatric pathologists is likely to continue, given the recent high-profile cases in which medical expert or pathologist testimony was found to be crucially defective. The courtroom is increasingly being viewed as a hostile environment, one which many qualified professionals would rather avoid. Sir Liam Donaldson, the Chief Medical Officer for England, has recently proposed the development of a state-based system for providing expert medical witnesses to family courts, as discussed in section E of this paper.

Pediatric forensic pathologists have been described as “gatekeepers,” since their decision-making around the cause of death may likely determine how the medical and legal systems will deal with a child fatality.²³ Nonetheless, there can be dispute amongst expert pediatric pathologists regarding cause of death, as forensic investigation is an inexact science and “cases of sudden infant death...are often indistinguishable from deaths involving intentional suffocation.”²⁴ In such cases, even the presence of injuries is not clear evidence of intent to harm and, often, “far from being based on hard, indisputable ‘facts’, infant death investigations involve subjective interpretation of the available evidence.”²⁵

In this battle between competing versions of medical explanation, some pathologists become adept at presenting expert witness testimony in court and become notable in their own right. Dr. Chris Pamplin, editor of the UK Register of Expert Witnesses, has commented that some witnesses “bring with them a very strong persuasive element to their evidence. And their evidence takes on a greater weight

²³ N. Ballenden, K. Laster, and J. Lawrence, “Pathologist as gatekeeper: Discretionary decision-making in cases of sudden infant death” (1993) 28 *Australian Journal of Social Issue*, 124-141.

²⁴ Fiona Brookman, and Jane Nolan, “The dark figure of infanticide in England and Wales: Complexities of diagnosis” (2006) 21 *Journal of Interpersonal Violence*, 878.

²⁵ *Ibid.*, p. 884.

because of the way they deliver it.”²⁶ A convincing witness, presenting complex scientific testimony, may come across as credible to judge and jury, but this does not necessarily advance the likelihood of a fair trial if such testimony is not founded in fact. And as will be discussed later in this paper, in recent years in the UK, expert witness testimony from pediatric forensic pathologists, based on unfounded or questionable scientific theories, has impacted on the generation of a number of miscarriages of justice.

Evidence of experts in English courts

Evidence proffered by witnesses in criminal courts must adhere to strict standards of admissibility. In general, witnesses must refrain from testifying about anything other than their own specific knowledge regarding the facts. Thus, opinion evidence is only allowed in exceptional circumstances. Experts might give opinion because they are “expected to give the court information which falls outside the general knowledge of the judge or jury”²⁷ and to assist the trier of fact in making a decision regarding the importance of, and the weight to be given to, certain evidence. Expert evidence is also exceptional in relation to the normal rules about hearsay. Expert witnesses may provide opinion evidence regarding the work of other individuals. In this regard, the evidence on which they are providing an opinion, if taken alone, would be hearsay. However, hearsay evidence in this instance is usually considered admissible, given that much scientific research is collaborative and that it is possible to speak knowledgeably about accepted developments in a particular field without having personally conducted the research. Part 1 and Part 24 of the Criminal Procedure Rules 2005,²⁸ as well section 127 of the Criminal Justice Act 2003, allow for expert witnesses to speak to either written or oral statements of evidence in court prepared by other experts. Furthermore, case law has demonstrated that judges can admit opinion evidence when the primary information presented is composed mainly or entirely of hearsay evidence. In *R. v. Abadom*,²⁹ the defendant appealed a conviction for robbery, based on the alleged inadmissibility of expert evidence

²⁶ Chris Pamplin, “Taking experts out of the court” (2004) 26 *New Law Journal*.

²⁷ Trevor Rothwell, “Presentation of expert forensic evidence” in Peter White (ed.), *Crime Scene to Court: The Essentials of Forensic Science* (2nd ed., The Royal Society of Chemistry, Cambridge, 2004) p. 419. See especially *R. v. Turner* [1975] QB 834.

²⁸ SI no.384.

²⁹ [1983] 76 Cr. App. R. 48.

described as hearsay. The expert witness in this case testified that the refractive index of a piece of glass found in the defendant's shoe was only found in 4% of glass, and this fact was then very strong evidence that the sample matched glass from the crime scene. His testimony was based on a construction of Home Office statistical tables, of which, the defence argued, he had no personal knowledge. In dismissing the appeal, the Court found that the evidence given did not infringe on the hearsay rule. As Lord Justice Kerr stated, "Once the primary facts on which their opinion is based have been proved by admissible evidence, they are entitled to draw on the work of others as part of the process in arriving at their conclusion," and they are encouraged to do so. Moreover, if an expert's report has not been contested, the report can then be put into evidence at trial, a further exception to the hearsay rule.³⁰ Since scientific knowledge may be disseminated in writing or orally (such as at a conference), there is no strict distinction drawn between formats, though it might of course be easy to challenge the accuracy of oral hearsay.

Overall, the manner in which expert opinion evidence has been accepted by courts in common law jurisdictions has often been neither straightforward nor coherent. What is apparent is that scientific evidence is being introduced in an increasing number of criminal trials and the frameworks of analysis for one discipline (science) are being put to the test in another (law). Accordingly, "scientific evidence is an inescapable fact of modern litigation,"³¹ and it has been argued that "although scientific evidence is not used in very many police investigations, its significance to debate is amplified because it is represented to be *the* most reliable category of evidence available."³² Given that forensic scientists are considered to be "expert witnesses," they can provide information to the courts on both fact and opinion; the difficulty occurs when the courts (and even the scientists themselves) are unclear as to which is which.³³

³⁰ Paul Roberts, "Science, experts, and criminal justice," in Mike McConville and Geoffrey Wilson (eds.), *The Handbook of the Criminal Justice Process* (Oxford University Press, Oxford, 2002) p. 276.

³¹ Erica Beecher-Monas, *Evaluating Scientific Evidence: An interdisciplinary framework for intellectual due process* (Cambridge University Press, NY, 2007) p. 4.

³² Peter Alldridge, "Forensic science and expert evidence" (1995) 21 *Journal of Law and Society*, 137 (emphasis original).

³³ Clive Walker and Russell Stockdale, "Forensic evidence" in Clive Walker and Keir Starmer, *op. cit.*, p. 120.

Professor Roberts notes that scientific evidence has five principal limitations: “(i) science never tells the whole story; (ii) forensic science is not pure science; (iii) some purported ‘science’ is not scientific; (iv) some purported ‘experts’ are not experts; and (v) science has to be presented to, and be evaluated by, non-scientists.”³⁴ Forensic pathology is subject to these problems. It may be especially vulnerable on issue (v) because of its complex and highly specialized nature, and also because the notoriety bestowed upon the relatively small number of forensic pathologists who testify in front of the courts further enhances the credibility of their evidence. As a result, jury decisions may therefore be made more *ad personam* than on the evidence. On the other hand, forensic pathology may be more secure than other sciences on issue (iv) because of the more formal training and qualifications of its practitioners. The natural decomposition of bodies may also present evident difficulties in terms of retesting, but then most disputes in forensics, as in other sciences, are about interpretation rather than the nature of the samples.

When ascertaining whether or not scientific evidence is acceptable under the standards of law, a number of contextual issues are of significance. Of particular importance is to what degree courts can accept the scientific method. Within the context of Popper’s³⁵ theory of falsification, a prevailing scientific method of reasoning, this raises further questions. The use of Popper’s method allows “facts” or theories to be falsified, but never convincingly verified.³⁶ Taken to an extreme, such an approach may set an unrealistic and unattainable benchmark for the courts, which are required to reach a dispositive outcome on the evidence presented. As a result, and influenced also by long traditions of pragmatism, the English courts have not adopted any single test for scientific proof, and have not been convinced by legal rationalizations in the United States which would require them to intervene much more actively as scientific gatekeepers, most notably in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*³⁷ In English courts, it is

³⁴ Paul Roberts, “Science, experts, and criminal justice” in Mike McConville and Geoffrey Wilson (eds.), *The Handbook of the Criminal Justice Process* (Oxford University Press, Oxford, 2002) p. 262.

³⁵ Karl Popper, *The Logic of Scientific Discovery* (5th ed., Routledge: London, 1992).

³⁶ Erica Beecher-Monas, *op. cit.*

³⁷ 509 U.S. 579 [1993] See Mike Redmayne, *Expert Evidence and Criminal Justice* (Oxford University Press, Oxford, 2001); William O’Brian, “Scrutiny of expert evidence: Recent decisions highlight the tensions” (2003) 7 *International Journal of Evidence and Proof* 172

assumed that the “ordinary processes of examination and cross-examination are capable of exposing any deficiencies in scientific evidence and that juries are capable of assessing the weight of such evidence.”³⁸

English courts have long recognized the role of expert evidence in deciding the outcome of trials. Early reported cases include *Folkes v. Chadd*³⁹ (the opinion of an engineer could be heard regarding whether or not an embankment impacted on the silting of a harbour) and *R. v. Silverlock*⁴⁰ (a solicitor was allowed to act as a handwriting expert). Case law in England and Wales has displayed constant receptivity to expert testimony, both in terms of what counts as “expertise” and in terms of who might be deemed an “expert.” The chief guiding principle, according to *Turner*,⁴¹ is that an expert witness should not give testimony on matters within the competence of the jury. There is a need to avoid confusing the jury and to avoid usurping their function as deciders of fact. Other reasons for limiting expert evidence are to delimit the issues of contention at trial and to ensure that the focus is on the facts of the case rather than on the qualifications of experts. One might also argue that in an adversarial system, there is a need for competing versions of the truth, not one authoritative viewpoint. In *Turner*, the defendant was accused of murdering his girlfriend, and his defence was provocation due to her admission of infidelity. A request to submit expert testimony from a psychiatrist to demonstrate that Turner was not suffering from mental illness was refused by the trial judge. The Court of Appeal took the following view:⁴²

An expert’s opinion is admissible to furnish the court with scientific information which is likely to be outside the experience and knowledge of a judge or jury. If on the proven facts a judge or jury can form their own conclusions without help, then the opinion of an expert is unnecessary. In such a case if it is given dressed up in scientific jargon it may make judgment more difficult. The fact that an expert witness has impressive scientific qualifications does not by that fact alone

³⁸ John Jackson, “Trial procedures” in Clive Walker and Keir Starmer, *op. cit.*, chap. 9.

³⁹ [1782] 3 Doug. K.B. 157.

⁴⁰ [1894] 2 Q.B. 766.

⁴¹ *R. v. Turner* [1975] QB 834.

⁴² *Ibid.* at p. 841 *per* Lord Justice Lawton.

make his opinion on matters of human nature and behaviour within the limits of normality any more helpful than that of the jurors themselves; but there is a danger that they may think it does.

In this case, while the expert witness's opinion was within his field of expertise, it was not necessary to assist the jury in understanding and assessing the defendant's account of the events ("jurors do not need psychiatrists to tell them how ordinary folk who are not suffering from any mental illness are likely to react to the stresses and strains of life").⁴³ Likewise, the issue of guilt or innocence—the "ultimate issue"—is within the province of the judge and jury, and it is not for experts to express even an opinion and usurp the trier of fact.⁴⁴ However, the strength of this rule is diminishing, and the Court of Appeal ruling on *Stockwell*⁴⁵ was that this prohibition is "more a matter of form than of substance."⁴⁶ The relaxing of this rule has been mainly felt in the realm of psychiatry, though as the Meadow case illustrates, it has also had an impact on the indulgence shown at times to expert opinion evidence from pediatric forensic pathologists with respect to their testimony as to the cause of death in sudden infant death cases.

These limits on expert evidence must be set alongside more encouraging *dicta*, such as that of Lord Justice Steyn in *R. v. Clarke* to the effect that there are "no closed categories where such evidence may be placed before a jury" and that "it would be entirely wrong to deny to the law of evidence the advantages to be gained from new techniques and new advances in science."⁴⁷ English law has thus proceeded case by case, scientific technique by scientific technique, even with vital forensic tests such as fingerprinting and DNA profiling.⁴⁸ It has sometimes struggled to set boundaries, especially in the field of

⁴³ *Ibid.* See also *R. v. Weightman*, [1991] 92 Cr. App. R. 291; *R. v. Coles* [1995] 1 Cr. App. R. 157. But compare *R. v. Humphreys* [1995] 4 All ER 1008, (battered woman syndrome was recognized as "real" and therefore might be the subject of explanation by an expert); *R. v. Ward*, [1993] 96 Cr. App. R. 1 at p. 66 (personality disorder). Polygraphy is also rejected as, at best, assessing character rather than adding scientific facts: *R. v. Chapman* [2006] EWCA Crim 2545.

⁴⁴ Save in very exceptional circumstances (e.g. *Lowery v. R* [1974] A.C. 85), psychiatric evidence cannot be admitted to prove the probability of the accused's veracity.

⁴⁵ [1993] 97 Cr. App. R. 260 at 265-6

⁴⁶ Steve Uglow, *Evidence: Text and Materials*. (2nd ed., Sweet and Maxwell, London, 2006) p. 705.

⁴⁷ [1995] 2 Cr. App. R. 425 at p. 430.

⁴⁸ See *R. v. Castleton* (1910) 3 Cr. App. R. 74; *R. v. Adams* [1996] 2 Cr. App. R. 467.

psychiatry, where fine distinctions can arise between mental conditions with scientific explanations and commonplace characteristics such as a quick temper or slow-wittedness. Examples include *Gilfoyle*,⁴⁹ a murder case where the defence was that the victim committed suicide, and counsel for the defence attempted to call an expert witness to provide a “psychological autopsy” of the victim to support the suicide argument. Both the trial judge and the Court of Appeal rejected this testimony, largely because the “psychologist had never embarked upon such a task before; there was no substantial body of academic writing approving his methodology.”⁵⁰ In this way, “the evidence might well have been admitted if the court had judged it to be about clinical depression rather than happiness or unhappiness,”⁵¹ but there was insufficient foundation for scientific credentials. But in other cases, ordinary people have become “experts” without proof of scientific foundation. In *R. v. Clare & Peach*, a police officer was allowed to give evidence on facial recognition from an indistinct video.⁵² He became an “expert” though close study of the tape. Likewise, new forms of “expertise” can arise without having been established in a wider body of scientific acceptance, so long as they are beyond the jury’s competence. It is the judge’s decision regarding who is in fact qualified to act as an expert, and the trial courts are granted wide discretion in making such determinations.⁵³ It is during cross-examination that a witness’s credentials can be investigated and a specific weight attached to them. In *Dallagher*,⁵⁴ the defendant was accused of murder, and part of the case rested on ear-print evidence left behind on the window at the crime scene. Two expert witnesses testified to the fact that the ear-print impressions were a match for the defendant. On appeal, fresh evidence presented by the defence questioned the reliability of this identification technique and the conviction was quashed. The Court reiterated that, “so long as the field is sufficiently well-established to pass the ordinary tests of relevance and reliability, then no enhanced test of admissibility should be

⁴⁹ [2001] 2 Cr. App. R. 57.

⁵⁰ Roger Munday, *Evidence* (4th ed., Oxford University Press, Oxford, 2007) p. 352

⁵¹ Steve Uglow, *op. cit.* pp. 683–4.

⁵² [1995] *Criminal Law Review* 947.

⁵³ Michelle Dempsey, *The use of expert witness testimony in the prosecution of domestic violence* (Crown Prosecution Service, London, 2004) p. 16.

⁵⁴ [2003]1 Cr. App. R. 12.

applied... .”⁵⁵ In *Luttrell*,⁵⁶ the Court held that lip-reading evidence was admissible, and in *Robb*,⁵⁷ an expert on phonetics was permitted to testify regarding voice identification, despite this expert’s unconventional research methods.

Crown forensic experts

Traditionally, Crown forensic experts enjoy an advantage over expert witnesses retained by defence lawyers, due in a large part to the financial resources of the Crown.⁵⁸ The Forensic Science Service (FSS), a UK government-owned company, is the main supplier of forensic services to police forces in England and Wales.⁵⁹ It undertakes a large number of investigations for police forces,⁶⁰ but relatively few for the defence.⁶¹ Crown expert witnesses have the further advantage of being the first on the crime scene to examine the evidence (or body), and therefore are in a better position to make the initial assessment regarding manner and cause of death, although they also have the disadvantage of not having heard the defendant’s own view of the course of events. The Home Office has recognized this relative imbalance and has attempted to address it through disclosure legislation⁶² and the development of a Disclosure Manual, containing the Attorney General’s Guidelines outlining duties for the police and prosecutors to disclose unused material to the defence.⁶³ Since the impact of the statutory rules is upon the police and prosecutors, there is some danger that their retained experts need not be entirely forthcoming with inconvenient data. However, in the 1992 Court of Appeal

⁵⁵ *Ibid.* at para. 29, quoting Colin Tapper, *Cross and Tapper on Evidence* (9th ed., Butterworths, London, 1999) p. 523.

⁵⁶ [2004] 2 Cr. App. R. 31.

⁵⁷ [1991] 93 Cr. App. R. 161.

⁵⁸ See Beverley Steventon, *The Ability to Challenge DNA Evidence* (Royal Commission on Criminal Justice Research Study No.9, London, 1993); Lord Justice Auld, *A Review of the Criminal Courts of England and Wales* (<http://www.criminal-courts-review.org.uk>, 2001) para. 11.150; *R. v. Bowman* [2006] EWCA Crim 417 at para. 178.

⁵⁹ See House of Commons Science and Technology Committee, *Forensic Science on Trial* (2004-05 HC 96).

⁶⁰ For the year 2004-2005, the FSS handled nearly 125,000 cases for the police, and gave expert on approximately 2,500 cases (http://www.forensic.gov.uk/forensic_t/inside/about/docs/04_05.pdf).

⁶¹ Only 2% of FSS work is for the defence (House of Commons Science and Technology Committee, *Forensic Science on Trial* (2004-05 HC 96) para. 155).

⁶² Obligations to disclose unused materials are set out in the Criminal Procedure and Investigations Act 1996, Codes of Practice (under sec. 23), and the Criminal Procedure Rules 2005 Pts.25-28.

⁶³ http://www.cps.gov.uk/legal/section20/chapter_a.html.

decision in *R. v. Maguire and Others*,⁶⁴ the judges enunciated a wider duty imposed directly on any acting forensic scientist to disclose evidence, “which he knew might have some bearing on the offence charged and the surrounding circumstances of the case; and the authority which retained him must, subject to sensitivity, disclose that information to the defence.” The extent of these duties, both common law and statutory, has caused many concerns on grounds of cost, delay, and compliance.⁶⁵

Defence forensic experts

Expert witnesses who testify on behalf of the defence often agree with the experts retained by the prosecution on the scientific foundation of the evidence; dissent generally surrounds the particular significance of that evidence. Defence experts operate at a disadvantage for a number of practical and structural reasons. When examining evidence, they rarely have the opportunity to see it in its original condition and must rely on photographs, slides, and reports prepared by other scientists,⁶⁶ and, at times, degraded samples. Thus, their role is secondary. Furthermore, they generally have a much shorter timeframe in which to work. Defence lawyers are understandably reluctant to use the services of what they believe are essentially “police labs;” in the past, material used for forensic testing by the defence, if sent to the Forensic Science Service, had to be submitted through the police, so there was considerable reluctance to do so.⁶⁷ But if the FSS is left out of the equation, there are relatively few available laboratories and experts. Furthermore, funding for consultation and experimentation may be limited by the Legal Services Commission. However, the accused also has disclosure obligations, as evinced by the Criminal Procedure and Investigation Act 1996 (the accused must give a defence statement to the court and the prosecutor, which sets out in general terms the nature of the

⁶⁴ *R. v. Maguire and Others* (1992) 2 All ER 433. See Patrick O’Connor, “Prosecution disclosure” in Clive Walker and Keir Starmer, (eds.) *Justice in Error* (Blackstone Press, London, 1993); Ben Fitzpatrick, “Disclosure” in Clive Walker and Keir Starmer, *op. cit.*

⁶⁵ Joyce Plotnikoff and Richard Woolfson, “A Fair Balance?” (Home Office Occasional Paper no.76, London, 2001) pp. 33, 34; Lord Justice Auld, A Review of the Criminal Courts of England and Wales (<http://www.criminal-courts-review.org.uk>, 2001) para. 10.167.

⁶⁶ See Trevor Rothwell, “Presentation of expert forensic evidence” in Peter White (ed.), *Crime Scene to Court: The Essentials of Forensic Science* (2nd ed., The Royal Society of Chemistry, Cambridge, 2004).

⁶⁷ House of Commons Science and Technology Committee, Forensic Science on Trial (2004-05 HC 96) para. 155.

accused's defence, and indicate the matters on which he takes issue with the prosecution)⁶⁸ and the Criminal Procedure Rules 2005, Part 24.⁶⁹ The 1996 Act has been amended by the Criminal Justice Act 2003, by which the defence must notify the court and prosecutor whether it intends to call witnesses (including experts) and must provide identifying information and details about these witnesses and also about any expert who has been contacted (whether called as a witness or not). Failure to do so may provoke adverse comment from the other party, a warning from the judge, and adverse inferences.⁷⁰ There is as yet no available study which suggests that the disclosure rules have affected the defence usage of experts or whether they have reduced "expert shopping."⁷¹ Given the limitations of state legal funding for forensic work and the relatively limited pool of experts in forensic pathology cases, it is doubtful whether expert shopping was ever a significant problem in that field.

C Leading cases on forensic pediatric pathology

The Court of Appeal judgments

The development of forensic techniques in recent years has meant that "science has made the breakthrough into 'normal' policing" within the United Kingdom.⁷² Certainly, the usage of science has increased markedly and is encouraged to grow further as a matter of governmental policy.⁷³ Yet, forensic science has always given rise to a significant share of miscarriages of justice within the United Kingdom. This darker side of progress was evident during the 1980s and early 1990s, when several convictions arising from Irish Republican terrorism were found to be unsafe because of undue reliance on some techniques, the faulty application or misinterpretation of others, or even

⁶⁸ s.5.

⁶⁹ SI no.384. This rule was formerly set out in the Crown Court (Advance of Expert Evidence) Rules 1987 SI no.716.

⁷⁰ Criminal Procedure and Investigations Act 1996 s.11. See Peter Wilcock and Joel Bennathan, "New disclosure rules for 2005" (2004) 154 *New Law Journal* 77.

⁷¹ The last major study was conducted before recent changes: Joyce Plotnikoff and Richard Woolfson, "A Fair Balance?" (Home Office Occasional Paper no.76, London, 2001).

⁷² Carole McCartney, *Forensic Identification and Criminal Justice* (Willan, Cullompton, 2006) p. 181.

⁷³ See for example Police Standards Unit, SWIM Summary report (Home Office, 2007).

wrongful action such as suppression or fabrication.⁷⁴ That further miscarriages of justice should arise from the misapplication of forensic science in the following decades is not surprising. As described in the next section of this report, systemic reform of forensic sciences in line with the recommendations of the Royal Commission on Criminal Justice, which responded to the Irish and other cases,⁷⁵ has not been implemented.

There followed an uneasy relationship between law and science, which almost reached a breaking point over pediatric pathology. The ramifications have resulted in the re-examination of hundreds of cases and in some very notable quashings of convictions. There were two leading cot death cases in January and December 2003, involving Sally Clark⁷⁶ and Angela Cannings.⁷⁷ In both cases, the Court of Appeal was faced with evidence that expert medical testimony (provided *inter alia* by Professor Sir Roy Meadow) was more problematic than previously acknowledged, and this resulted in the quashing of the verdicts. In between these appeal hearings, in June 2003, occurred the highly publicized prosecution of Trupti Patel, who had been acquitted by the jury at Reading Crown Court of the murder by suffocation of her three children; amongst the experts called by the Crown at her trial was Professor Meadow.⁷⁸ In this case, Meadow's testimony for the prosecution relied on four specific indications of Patel's guilt: evidence of injuries (broken ribs) suffered by the third child, the fact that the children had been frequently seen by physicians, that they had been healthy just prior to death, and that three children had consecutively died in that family. Meadow told the jury that, "In general, sudden and unexpected death does not run in families."⁷⁹ However, two other prosecution witnesses, pathologists Professor Rupert Risdon and Nathaniel Carey, had initially believed the broken ribs to be evidence of intentional injury, but later

⁷⁴ See Clive Walker and Russell Stockdale, "Forensic evidence" in Clive Walker and Keir Starmer, *op. cit.*

⁷⁵ Cm.2263, London, 1993.

⁷⁶ [2003] EWCA Crim 1020. See further John Batt, *Stolen Innocence: The Sally Clark Story - A Mother's Fight for Justice* (Ebury Press, London, 2004); <http://www.sallyclark.org.uk/>.

⁷⁷ [2004] EWCA Crim 1. See further Tony Ward, "Experts, juries and witchhunts" (2004) *Journal of Law & Society* 369; Angela Cannings and Megan Lloyd Davies, *Against All Odds: The Angela Cannings Story* (Little, Brown Book Group, London, 2006).

⁷⁸ Helen Studd, "Mother cleared of killing her babies" *The Times* 12 June 2003 p. 1.

⁷⁹ See J. Vasagar and R. Allison, "How cot deaths shattered mother's dreams" *The Guardian* 12 June 2003 (<http://society.guardian.co.uk/publichealth/story/0,,975726,00.html>)

“downgraded” their significance, viewing them as quite likely the result of resuscitation efforts. A genetics expert for the defense, Professor Michael Patton, further testified that there was evidence of an undiscovered genetic link to the babies’ deaths. In fact, he believed that the risk of more than one cot death in a family could be as high as one in twenty.⁸⁰

At the second time of asking,⁸¹ on 29 January 2003, the Criminal Division of the Court of Appeal quashed the conviction of Sally Clark. The Crown did not seek a retrial. In 1999, Clark had been convicted at Chester Crown Court of the murder of her two sons, C and H, in the one case by smothering and in the other by suffocation. A Home Office pathologist, Dr. Alan Williams, recorded injuries on C’s body, which he claimed were consistent with minor harm caused during the resuscitation procedures undertaken by the ambulance personnel or the medical staff at hospital. He also found an infection in C’s lungs. Nevertheless, the case was treated as SIDS. As for H, Williams concluded that there was evidence of non-accidental injury consistent with shaking over several days—a conclusion that caused him to reconsider the cause of death in respect of C, which was then attributed to smothering. In addition to Williams, the prosecution relied upon the medical evidence of three other eminent expert witnesses, two of whom felt that the deaths of C and H remained “unascertained”:⁸² Professor Sir Roy Meadow, Emeritus Professor of Paediatrics and Child Health at St James’s University Hospital in Leeds; Dr. Keeling, a consultant pediatric pathologist; and Professor Michael Green, Emeritus Professor of Forensic Pathology at the University of Sheffield. The evidence from Professor Meadow also included statistical evidence in relation to the likelihood that two SIDS deaths would occur within one family. Asked to calculate the risk of two infants dying of SIDS in the same family, he based his reply on the calculation that the chance of a single SIDS death within a family with particular risk factors was 1 in 8,543, and then “you have to multiply 1 in 8,543 times 1 in 8,543 and ... it’s approximately a chance of 1

⁸⁰ “The lessons of the Trupti Patel case” *BBC News* 12 June 2003

⁸¹ For her earlier appeal, see [2000] EWCA Crim 54.

⁸² *Loc. cit.* at paras. 59, 60, 90.

in 73 million.”⁸³ Experts also appeared for the defence, one of whom substantially qualified the statistical evidence, and this was reflected in words of caution in the summing up of the judge. The second appeal, on referral back to the Court by the Criminal Cases Review Commission, was founded on fresh evidence concerning microbiological test results, which showed the presence of *Staphylococcus Aureus* in the case of H, of which Williams had been aware, but which he had not mentioned in his post-mortem examination report. Nor were they subsequently disclosed by the prosecution. In addition, the appellant contended that statistical information given to the jury about the likelihood of two sudden and unexpected infant deaths from natural causes misled the jury and overstated the rarity of reoccurrence.

The Court of Appeal’s conclusions on the pathology evidence were inconclusive—it was “a difficult case.”⁸⁴ As a result, the precipitating cause of the overturning of the conviction was the non-disclosure by Williams of expert microbiological evidence in respect of H, which also cast doubt on the conclusions on C.⁸⁵ The conduct of Williams fell “a very long way short of standards to be expected of someone in his position upon whose evidence the court was inevitably going to be so dependent.”⁸⁶ Though the statistical analysis of Professor Sir Roy Meadow was of lesser impact, it was called into question by the Court as grossly overstating the chance of two sudden deaths and should have been excluded.⁸⁷ The “squaring” of the odds is only valid if each of the deaths is truly independent of the other; that is, without the shared genetic and environmental circumstances of children who were members of the same family.⁸⁸

In the other leading case, Angela Cannings had been convicted at Winchester Crown Court, in 2002, of the murder by smothering of two of her four children. A third

⁸³ *Ibid.* at para. 96. But Meadow has argued in the Clark case that this estimate is irrelevant in any event because the pathologists did not suggest a diagnosis of SIDS, Roy Meadow, “A case of murder and the BMJ” (2002) 324 *British Medical Journal* 41. This point does not of course deal with the impact of an irrelevancy on the jury.

⁸⁴ *Ibid.* at para. 93.

⁸⁵ *Ibid.* at para. 135.

⁸⁶ *Ibid.* at para. 164.

⁸⁷ *Ibid.* at para. 178. The Court of Appeal hearing in 2000 had concluded that the conviction was not rendered unsafe by the statistical evidence: *loc. cit.* at para. 273.

⁸⁸ *Meadow v. GMC* [2006] EWCA Civ 1390 at para. 135.

baby had also died, and the surviving child had experienced an acute or apparent life-threatening event at the age of 11 weeks, from which she had made a full recovery. The Crown's case heavily depended on specialist evidence about the conclusions to be drawn from the history of three infant deaths in the same family. On 10 December 2003, the Court of Appeal quashed the convictions and emphasized that if each was an unexplained death, then the fact of reoccurrence did not lead to the inexorable conclusion that they must have resulted from the deliberate infliction of harm. However, a clinching factor was that there was significant and persuasive fresh evidence relating to a realistic albeit unquantified possibility of a genetic problem within the defendant's family. This alternative thesis (along with a variety of other novel theories, such as environmental toxins or immunization injections) was not ultimately proven, but it was sufficient to render the verdict unsafe. The Court was explicit about the values underlining its approach, namely its abhorrence of the wrongful conviction of a mother "already brutally scarred by the unexplained death or deaths of her babies."⁸⁹ Without equating the conviction of the innocent to a failure to convict the guilty, one must of course recognize that the stakes are high for all concerned, and that an unduly reluctant diagnosis of SIDS may also threaten the lives of subsequent siblings—a point that the Court was less wont to emphasize.⁹⁰

Professor Meadow, who again appeared as an expert, did not offer mathematical probabilities in *Cannings*.⁹¹ In *Cannings*, the criticism went further—to the value of the scientific bases for the evidence of Professor Sir Roy Meadow. The prosecution asserted that there had to be some criminal action, likely to be smothering, on the part of the mother, in the light of the fact that babies in the same family died in similar equivocal circumstances when in her sole charge. This multiple occurrence was the core of Professor Meadow's thesis: one sudden infant death is a tragedy, two is suspicious, and three is murder until proved otherwise.⁹² Likewise, his inference, that a short interval

⁸⁹ [2004] EWCA Crim 1 at para. 179.

⁹⁰ See J. Stanton and A. Simpson. "Murder misdiagnosed as SIDS" (2001) 85 *Archives of Diseases in Childhood* 454.

⁹¹ *Loc. cit.* at paras. 16-17.

⁹² See further Robert Carpenter *et al.*, "Repeat sudden unexpected and unexplained infant deaths natural or unnatural" (2005) 365 *The Lancet* 29; Christopher Bacon and Edmund Hey,

between an independent report that the baby was well and a sudden death was suggestive of wrongdoing,⁹³ was also contested.

With mounting disquiet about expert evidence, the Court in *Cannings* was forthrightly concerned about “dogma” on the part of the experts.⁹⁴ The Court has come late to an understanding that science is dynamic, with professional cultures influencing experimentation and interpretation in the natural sciences just as they do in the social sciences.⁹⁵ The Court’s response to the revelation was, seemingly, to cast a plague on both houses in the battle of forensic experts. The Court of Appeal concluded as follows:⁹⁶

The trial, and this appeal, have proceeded in a most unusual context. Experts in many fields will acknowledge the possibility that later research may undermine the accepted wisdom of today. ‘Never say never’ is a phrase which we have heard in many different contexts from expert witnesses. That does not normally provide a basis for rejecting the expert evidence, or indeed for conjuring up fanciful doubts about the possible impact of later research. With unexplained infant deaths, however, as this judgment has demonstrated, in many important respects we are still at the frontiers of knowledge. Necessarily, further research is needed, and fortunately, thanks to the dedication of the medical profession, it is continuing. All this suggests that, for the time being, where a full investigation into two or more sudden unexplained infant deaths in the same family is followed by a serious disagreement between reputable experts about the cause of death, and a body of such expert opinion concludes that natural causes, whether explained or unexplained, cannot be excluded as a reasonable (and not a fanciful) possibility, the prosecution of a parent or parents for murder should not be started, or continued, unless there is additional cogent evidence, extraneous to the expert evidence, (such as we have exemplified in

⁹³ “Uncertainty in classification of repeat sudden unexpected infant deaths in Care of the Next Infant programme” (2007) 335 *British Medical Journal* 129.

⁹⁴ *Loc. cit.* at para. 150.

⁹⁵ *Loc. cit.* at para. 29.

⁹⁶ See Sheila Jasanoff, *Science at the Bar* (Harvard University Press, 1995) p. xv; Brian Wynne, Establishing the rules of law constructing expert authority in Roger Smith and Brian Wynne, (eds.), *Expert Evidence* (Routledge, London, 1989).

⁹⁶ [2004] EWCA Crim 1 at paras. 178-179.

paragraph 10) which tends to support the conclusion that the infant, or where there is more than one death, one of the infants, was deliberately harmed. In cases like the present, if the outcome of the trial depends exclusively or almost exclusively on a serious disagreement between distinguished and reputable experts, it will often be unwise, and therefore unsafe, to proceed.

In expressing ourselves in this way we recognise that justice may not be done in a small number of cases where in truth a mother has deliberately killed her baby without leaving any identifiable evidence of the crime. That is an undesirable result, which however avoids a worse one. If murder cannot be proved, the conviction cannot be safe. In a criminal case, it is simply not enough to be able to establish even a high probability of guilt. Unless we are sure of guilt the dreadful possibility always remains that a mother, already brutally scarred by the unexplained death or deaths of her babies, may find herself in prison for life for killing them when she should not be there at all. In our community, and in any civilised community, that is abhorrent.

Given evidence based on science that is “still at the frontiers of knowledge,” where there is “a serious disagreement between reputable experts about the cause of death,” the prosecution of a parent for murder should only be pursued, according to the Court, if there is additional cogent evidence, extraneous to the experts. But this approach immediately raised several imponderables. Does the basic scientific methodology of ongoing falsification not mean that *all* science is “at the frontiers of knowledge”? Indeed, if a science ceases to have frontiers where received wisdom is questioned, then it should be debunked as unscientific creed. Next, what constitutes “serious disagreement”? Who are “reputable” experts, and who makes that judgement? Furthermore, a policy that excludes “serious” scientific dispute is disturbing, and runs contrary to the principles of adversarialism. Do the courts believe they are merely capable of handling “easy” forensic disputes? Contentious cases form the staple of Crown Court business. If a case were cut and dried, then there would be a guilty plea or directed acquittal. The answer must surely be not to eschew scientific disputes, but to develop appropriate standards and techniques for hearing and resolving them. In *Cannings*, the Court showed an impressively

painstaking approach to the scientific testimony,⁹⁷ and application of the burden and standard of proof surely assists in cases where significant uncertainty cannot be resolved.⁹⁸ The same observations apply, in principle, to civil cases, though it may be admitted that the standard of proof may be less decisive in that sphere, meaning that a higher degree of scientific uncertainty may remain.

The untenable retreat from forensic dispute apparently enunciated in *Cannings* was corrected in *R. v. Kai-Whitewind*.⁹⁹ The defendant's third child was conceived in the course of an alleged rape. Immediately after the birth, she suffered from depression, and she also admitted to a health visitor that there had been a fleeting moment when she felt like killing the child. Shortly before the child's death, the defendant sought medical advice about two incidents of vomiting and a spontaneous nosebleed. Post-mortem examinations revealed a number of features, including old blood in the lungs, consistent with two distinct episodes of upper airway obstruction. The prosecution relied, *inter alia*, upon the findings from a second post-mortem examination, from which the conclusion of their expert was that the immediate cause of death was lack of oxygen, resulting in asphyxiation. A different expert concluded that obstruction of the airways was the most likely cause of bleeding, and he could think of no explanation alternative to asphyxia. The defence relied, *inter alia*, upon the conclusion from the first post-mortem that the cause of death was "unascertained" and the opinion of a consultant pediatric pathologist that death by natural causes was more probable than unnatural death. The defendant's appeal against conviction of murder was rejected. The Court noted that, though there were disputes between reputable experts about the significance of some of the findings made at post-mortem, as there had been in *Cannings*, this similarity did not preclude conviction. It was noted, in this case, that disagreement between medical experts was not,

⁹⁷ See also *R. v. Sion Jenkins* [2004] EWCA Crim 2047.

⁹⁸ Compare in civil cases: See *Re Uddin (a child) (serious injury: standard of proof)* [2005] EWCA Civ 52; *Re LB and Re LU* [2004] EWCA Civ 567; David Wheeler, "The far-reaching impact of *Cannings*" (2004) 154 *New Law Journal* 1131.

⁹⁹ [2005] EWCA Crim 1092.

on its own, sufficient to find a conviction unsafe; it is the role of the jury to appraise the expert evidence and to pick through the testimony of forensic pathologists.¹⁰⁰

In this way, the strength of *Cannings* has waned—but by how much? In *Kai-Whitewind*, the Court of Appeal starkly concluded that *Cannings* was not applicable at all.¹⁰¹ One important distinction was said to be the fact that the latter case involved serial deaths, whereas there was only one infant death in the former. But the appeal in *Cannings* essentially refuted the theory of Sir Roy Meadow that multiple deaths are themselves evidence of culpability, so it is hard to see why this factor should remain a crucial division. Another distinction was said to be the greater availability of evidence in *Kai-Whitewind*. But there remained the first post-mortem conclusion that the cause of death was “unascertained” and that natural causes could not be ruled out. Of course, one might conclude that in *Kai-Whitewind*, the evidence was quantitatively and qualitatively stronger on the prosecution side. There were more thorough second and third post-mortem inquiries, evidence of the confession of a fleeting thought of killing the baby and of the infliction of serious prior injury, plus the failure of the accused to give evidence at trial.¹⁰² But to say that the case did not resonate with *Cannings* is untrue, and the two trial experts for the defence continued to assert, having reviewed the later post-mortem inquiries, that the cause of death was unascertained.¹⁰³

Two subsidiary but important observations were made. The Court felt that the offence of infanticide is outdated. In order for infanticide to be available to a jury as an

¹⁰⁰ The Court of Appeal stated: “We understand that *Cannings* is being deployed in many cases by the defence as authority for different arguments running along the lines that whenever there is a genuine conflict of opinion between reputable experts, the prosecution should not proceed, or should be stopped, or that the evidence of the prosecution experts should be disregarded. If so, the single passage found in part of paragraph 178 in *Cannings*, taken in isolation, is being asked to sustain an unforeseen, and as we shall explain, inappropriate burden.” *Ibid.* at para. 74 The Court of Appeal distinguished the cases on the basis that “In *Cannings* there was essentially no evidence beyond the inferences based on coincidence which the experts for the Crown were prepared to draw. Other reputable experts in the same specialist field took a different view about the inferences, if any, which could or should be drawn. Hence the need for additional cogent evidence. With additional evidence, the jury would have been in a position to evaluate the respective arguments and counter-arguments: without it, in cases like *Cannings*, they would not.” *Ibid.* at para 85.

¹⁰¹ *Loc. cit.* at para. 83.

¹⁰² See Criminal Justice and Public Order Act 1994 s.35.

¹⁰³ *Loc. cit.* at paras. 57, 66.

alternative to murder, evidence would be required that the “balance of her mind was disturbed,” either because the mother had not recovered from giving birth or because of the effect of lactation on her. The offence does not extend to circumstances subsequent to the birth but connected with it, such as the stresses imposed on a mother by the absence of natural bonding with her baby. The Law Commission’s Consultation Paper, “A New Homicide Act for England and Wales,”¹⁰⁴ adopted a “minimal” reform position—to raise the age limit of the victim to two years, but to remove the reference to lactation. Neither change would have impacted on *Kai-Whitewind*. Despite strong medical opinion, based on the likely impact of mental illness, that homicide is not an appropriate charge even when harm is perpetrated by parents,¹⁰⁵ in its later full report in 2006, “Murder, Manslaughter and Infanticide,”¹⁰⁶ the Law Commission resiled from these proposals.

A second issue raised by the Court concerned the availability of psychiatric evidence relating to the mother. Where infanticide is not an alternative count because the accused denies killing the child and has refused any psychiatric assessment, an alternative approach would be for the trial judge, on conviction of murder, to order a medical examination; if evidence were found relevant to infanticide, the judge could then certify an appeal.¹⁰⁷ The Law Commission has accepted this proposal,¹⁰⁸ but other grounds of appeal may be more likely sought in preference, and also, one wonders how convincing will be the psychiatric evidence compiled many months after the death. It is submitted that the Law Commission’s stance is sensible, Its stance is perhaps as favourable as possible to the parent given the ability of the parent to select her own legal tactics in an adversarial system and in recognition of personal autonomy with respect to medical procedures. The only other point which might be emphasized is the importance of ensuring that experienced counsel is available to the defendant, so that the legal alternatives, and also the medical services on offer, are fully appreciated.

¹⁰⁴ No.177, 2005, para. 9.78.

¹⁰⁵ John Emery and Alison Waite, “These deaths must be prevented without victimising parents” (2000) 320 *British Medical Journal* 310.

¹⁰⁶ (2006-07 HC 30) para. 8.23.

¹⁰⁷ No.177, 2005, para. 9.106.

¹⁰⁸ (2006-07 HC 30) para. 8.58.

Though none matched the publicity afforded to *Clarke* and *Cannings*, several other controversial cases involving pediatric pathology have emerged. In *R. v. Anthony*,¹⁰⁹ following a reference by the Criminal Cases Review Commission, the conviction of Donna Anthony in 1998 for the murder by smothering of her two children was overturned, uncontested by the Crown. In that case, the assertion of Professor Sir Roy Meadow regarding “such incredibly long odds” against two children in the same family dying of natural unexplained causes, which were obtained by multiplying the chances of single deaths, was again disputed¹¹⁰ and viewed as “flawed statistical evidence.”¹¹¹

In *R. v. Harris*,¹¹² four appellants, two of whom had been invited by the Attorney General’s interdepartmental review (see below) to consider an appeal following *Cannings*, sought to overturn their convictions, for manslaughter, murder, manslaughter, and inflicting grievous bodily harm respectively, arising from allegations of non-accidental head injuries (NAHI) previously referred to as Shaken Baby Syndrome (SBS). The traditional medical view had been that the coincidence of a triad of intracranial injuries consisting of encephalopathy (defined as disease of the brain affecting the brain’s function), subdural hemorrhages, and retinal hemorrhages, in babies aged between one month and two years, was the hallmark of NAHI. New medical research, “the unified hypothesis” challenged the supposed infallibility of the triad. In contrast to *Cannings*, the Court declined to specify any new procedures or rules of evidence where medical experts are involved.¹¹³ The results of the four cases were as follows: in *Harris*, the Court of Appeal quashed her conviction for the manslaughter of her son; in *Rock*, his conviction for the murder of his partner’s infant daughter was quashed, a manslaughter conviction was substituted, and his life sentence was reduced to seven years’ imprisonment; in *Cherry*, his appeal of the manslaughter conviction for the death of his partner’s daughter

¹⁰⁹ [2005] EWCA Crim 952.

¹¹⁰ *Ibid.* at para. 69.

¹¹¹ *Ibid.* at paras. 85, 92.

¹¹² [2005] EWCA Crim 1980.

¹¹³ *Ibid.* at para. 270.

was dismissed and the conviction upheld; and in *Faulder*, his conviction of grievous bodily harm of an infant was quashed.¹¹⁴

There has been continued receptivity to fresh medical evidence on the part of the courts. In *R. v. Gay*,¹¹⁵ Angela and Ian Gay were convicted of the manslaughter of Christian Blewitt, who had been placed with them with a view to adoption. The death was caused by hypernatraemia, a high sodium concentration in the blood. The prosecution, through Professor George Haycock, alleged the excessive administration of salt by the appellants. The defence expert, Dr. Glyn Walters, a retired chemical pathologist, sought to show a new alternative hypothesis, relating to a natural fault in the the osmostat, the mechanism for maintaining the concentration of sodium in the body. The defendants were acquitted at retrial on 3 March 2007.

Reviews and further appeals

Prompted by the decision in *Cannings*, in January 2004, the Attorney General announced a review of 258 convictions within the previous 10 years relating to homicide or infanticide of a baby under two years old by a parent.¹¹⁶ In total, 297 cases were reviewed by the Attorney General's Office. Three cases were considered worthy of referral as precisely analogous to the facts of *Cannings*, with 28 in total deemed worthy of further examination by the Criminal Cases Review Commission.¹¹⁷ The Commission referred just one case in response to the Attorney General's review, Lisa Gore's,¹¹⁸ in addition to the case of Donna Anthony, which was referred just after *Cannings*.¹¹⁹ Others sought to appeal without waiting for the endorsement of the Commission, as illustrated by the case of *R. v. Harris*¹²⁰ described earlier. To this review must be added the 49 cases

¹¹⁴ See further Lord Goldsmith, *The review of infant death cases: Addendum to Report, Shaken Baby Syndrome* (London, 2006).

¹¹⁵ [2006] EWCA Crim 820. Compare *R. v. C* [2006] EWCA Crim 2667.

¹¹⁶ *The Times* 20 January 2004 pp. 1, 4.

¹¹⁷ See *The Review of Infant Death Cases* (2004); House of Lords Debates vol.678 col.1079 14 February 2006, Lord Goldsmith.

¹¹⁸ Annual Report 2006-07 (2006-07 HC 771) p. 29. She was convicted of infanticide in 1996 and died in 2003. Her appeal was dismissed on 4 July 2007: Case No: 0605380 C4.

¹¹⁹ Annual Report 2004-05 (2004-05 HC 115) p. 19.

¹²⁰ [2005] EWCA Crim 1980.

reviewed following the acquittal of Sally Clark and affected by the work of Dr. Alan Williams.¹²¹

There was a parallel review in civil cases, ordered by Margaret Hodge, the then Minister of State for Children.¹²² This review found 5,175 cases going through the family courts, involving 9,195 children. Of these, 385 cases hinged on expert evidence, but dispute among experts was detected in only 47 cases. So far as reports disclose, in only one case has the care plan changed subsequent to the review.¹²³ In a second stage of the review, the authorities were asked to review about 30,000 care orders already in place. Of these cases, only 26 were found to involve disagreement between medical experts, and only five raised “serious doubt” about the reliability of the evidence.¹²⁴ The outcomes have not yet been reported.

The criminal and civil reviews were both essentially administrative. In other words, the work was principally carried out by officials who reviewed case files from which they sought to identify relevant actors and features. The legal professions were also invited to identify troubling cases and to make representations on those already under review. The administrative review did not in any way dispose of the cases, but it could recommend that further legal action to be taken, including by the representatives of the parties. In the criminal cases only, notification to the Criminal Cases Review Commission triggered a more formal review process.

Disciplinary proceedings

There were two disciplinary cases that directly arose from the foregoing appeals. The most notable concerned Professor Sir Roy Meadow. His case was heard before the GMC Fitness to Practice Panel (FTP Panel), convened through section 35D of the

¹²¹ *The Times* 5 December 2003 p. 4.

¹²² House of Commons Debates vol.422 col.52ws 17 June 2004.

¹²³ Clare Dyer, “Review of child care cases finds few instances that raise ‘serious doubt’” (2004) 329 *BMJ* 1256.

¹²⁴ *Ibid*,

Medical Act of 1983.¹²⁵ The FTP Panel is empowered to examine physician's fitness to practice and can make recommendations regarding disqualifying decisions or other determinations through a hearing. The FTP Panel examines cases of misconduct, deficient professional performance, cases where there has been a conviction or caution for a criminal offence, adverse physical or mental health, or a determination by another health authority that fitness to practice was impaired.¹²⁶ In cases where the FTP Panel determines that fitness to practice is impaired, it may direct that a person's name be erased from the register or suspended for up to 12 months; it may also direct that registration be conditional upon compliance, or where fitness to practice is not impaired, give a warning.¹²⁷

It was determined by the FTP Panel that Meadow's work in general amounted to an attempt, based on rational argument and research, to change perceptions and approaches to the suspicious death of babies. Equally, of course, there are arguments, common to all scholarly progress, that some of his presentations were misleading or wrong. In that context, it was exceptional that he should be subject to disciplinary proceedings, and some viewed that process to be as much of a witch-hunt as others had so depicted his attitude to suspected parents.¹²⁸ In the event, he was struck off the medical register in July 2005 on grounds of serious professional misconduct by having given evidence about statistics that he had misunderstood and by having failed to make clear that he was not an expert in statistics.¹²⁹ The latter contention implies that only qualified statisticians should present evidence relying upon statistics, a degree of specialism which, if enforced, would cause many costly delays in the courts, but there was more general

¹²⁵ For procedures, see Sched.4. These provisions were inserted into the 1983 Act by the Medical Act 1983 (Amendment) Order 2002 SI no.3135 and following the Department of Health review, Reform of the General Medical Council (http://www.dh.gov.uk/prod_consum_dh/idcplg?IdcService=GET_FILE&dID=9708&Rendition=Web, London, 2002).

¹²⁶ s.35C(2).

¹²⁷ s.35D(2).

¹²⁸ Richard Horton, "In defence of Roy Meadow" (2005) 366 *The Lancet* 3.

¹²⁹ CO/5763/2005.

agreement amongst commentators that Meadow's handling of the statistics had been misleading.¹³⁰

There followed litigation as to whether an expert should be disciplined for testimony in court, or whether, as sustained by the High Court, there exists an immunity from suit enjoyed by an expert witness in respect of the evidence related in court.¹³¹ The Court of Appeal in *Meadows v. GMC*¹³² found that an expert witness has no immunity from disciplinary proceedings, for disciplinary proceedings are in the public interest. But it concluded that the penalty imposed was not proportionate for an eminent person who had in good faith made errors and without intention to mislead. "Serious professional misconduct" need not relate to clinical practice and could include misconduct in other contexts, including the giving of medical evidence in court; it does not demand the presence of bad faith or moral turpitude, but must be based upon incompetence or negligence to a high degree.¹³³ Being struck off the register is, of course, a serious blow to the credibility of an expert such as Meadow, and it has effectively ended his career as such. No other official sanction has been imposed, though it is not known whether any civil action for negligence (which would not require proof to the same degree of seriousness as professional misconduct requires) is pending.

Other cases of relevance to appear recently before the General Medical Council include that of Dr. Camille de Sam Lazaro, who was criticized in May 2005 for inconsistencies, lack of clarity, and inaccuracies and deficiencies in cases involving pedophile offences relating to two nursery workers in Newcastle (who were acquitted). The doctor was found not guilty of serious professional misconduct but was censured.¹³⁴

¹³⁰ See Philip Dawid, "Statistics on trial" (2005) 2 *Significance* 6; R. Hill, "Reflections on the cot death cases" (2007) 47 *Medicine, Science, Law* 2; Richard Nobles and David Schiff, "Misleading statistics within criminal trials" (2007) 47 *Medicine, Science, Law* 7.

¹³¹ [2006] EWHC 146 (Admin). See Sir Louis Blom-Cooper, "Disciplining expert witnesses by regulatory bodies" [2006] *Public Law* 3.

¹³² [2006] EWCA Civ 1390. See Sir Louis Blom-Cooper, "Fault lines remain after Meadow" (2006) 156 *New Law Journal* 1697.

¹³³ *Loc. cit.* at paras. 200, 201.

¹³⁴ "Doctor censured" *The Times* 14 May 2005 p. 4. See *R. v. Harris* [2005] EWCA Crim 1980.

Colin Ralston Paterson, a pathologist, was struck off by the General Medical Council in 2004 for misleading courts with his invention of “temporary brittle bone disease.”¹³⁵ Injuries in dozens of children with fractures apparently caused by their parents were attributed to “temporary brittle bone disease” or to *osteogenesis imperfecta*, a genuine but rare disorder in which brittle bones are permanent, or to copper deficiency. The fear was that children were wrongly sent back to parents who harmed them. After some 60 cases, his evidence was branded as “woeful” by Mr. Justice Singer in 2001,¹³⁶ whereupon the President of the High Court’s Family Division reported Paterson to the General Medical Council. Following the proceedings, scores of Scottish child abuse cases were reviewed by the Scottish Children’s Reporter Administration.¹³⁷

By contrast, Dr. Jane Donegan was found not guilty of serious professional misconduct by the General Medical Council in August 2007.¹³⁸ She had given expert evidence about the potentially dangerous impact of immunization injections on children, which the courts had described as biased and even as “junk science.”¹³⁹ It has been suggested that the General Medical Council has refined its approach in these types of cases in the light of the Meadow case and has become more forgiving of expert error.¹⁴⁰

Aside from disciplinary proceedings conducted by the General Medical Council, the Home Office directly disciplines the pathologists who act on its behalf. The Home Office Disciplinary Panel can hear complaints pursuant to the Home Office Register of Forensic Pathologists, Disciplinary Rules.¹⁴¹ Various levels of sanction exist and, in cases where a complaint has been made against a pathologist, he or she may be brought before the Disciplinary Committee, Hearing Panel or, in the most serious cases, the Disciplinary Tribunal. The Disciplinary Tribunal has a range of sanctions available to it, including the removal of a pathologist’s name from the Register. The purpose of the disciplinary

¹³⁵ Clare Dyer, “Inexpert witness” *The Guardian* 6 April 2004 p. 16.

¹³⁶ *Re X (Non-Accidental Injury: Expert Evidence)* [2001] 2 FLR 90.

¹³⁷ Liam McDougall, “Scores of Scottish child abuse cases reopened after expert witness struck off” *The Sunday Herald* 9 May 2004 p. 11.

¹³⁸ <http://www.whale.to/vaccine/Index%20to%20GMC%20Aug07%20transcripts.doc>.

¹³⁹ *Re C and Re F* [2003] EWHC 1373 (Fam).

¹⁴⁰ Peter Gooderham, “Experts exonerated” (2007) 157 *New Law Journal* 1285.

¹⁴¹ Issue 1, www.homeoffice.gov.uk/documents/Disciplinary-Rules-Issue-1.pdf, 2005.

procedures is to ensure that the Register “continues to identify only those who are fit to practice.”¹⁴² These procedures can be punitive as well as remedial in function. The Home Office operates this disciplinary system (which includes legal and medical experts) because of the highly specialized nature of pathology services. The Home Office operates its own register of approved pathologists, aside from the register of medical practitioners overseen by the General Medical Council or the Royal College of Pathologists. There is the potential for conflict between the professional standards set by the Home Office Panel, by the General Medical Council (as in the case of Paterson), and by the Royal College. However, there are no current proposals for amalgamation of these systems, and the main focus of reform is upon the General Medical Council.

Under the Home Office process, Dr. Alan Williams, a Home Office pathologist who conducted the post-mortem in the Sally Clarke case, was found guilty of serious professional misconduct by its Medical Board, in June 2005, for failing to disclose microbiology tests which showed infection. He was banned from such work for three years.¹⁴³ However, an Appeal Panel in 2007 (chaired by former Lord Chief Justice Paul Kennedy) reinstated him the same year on the basis that he had made an honest albeit serious error, which was not likely to be repeated and which he had not sought to conceal.¹⁴⁴

Finally, the Home Office Disciplinary Panel acted against pathologist Michael Heath, who contended, in the face of severe disagreements with other pathologists, that two women had been murdered. One case involved Kenneth Fraser, who was acquitted by an Old Bailey jury in 2002. Dr. Heath had opined that Fraser’s partner had been battered to death, whereas the defence claimed she had been pushed down stairs. Second, in 2002, Steven Puaca was found guilty of smothering his partner, but his conviction was quashed by the Court of Appeal. In that case, Dr. Heath’s claim of asphyxiation was ultimately rejected. In addition to these cases, Dr. Heath’s evidence was also deemed to be “discredited” in the prosecutions of Malcolm Byrne, Victor Boreman, and Michael

¹⁴² *Ibid.* s.10.

¹⁴³ Clare Dyer, “Clark pathologist guilty of misconduct” *The Guardian* 4 June 2005 p. 7.

¹⁴⁴ Peter Gooderham, “Experts exonerated” (2007) 157 *New Law Journal* 1285.

Byrne, convicted of murder in 1996.¹⁴⁵ In August 2006, the Home Office panel concluded that he fell short of the required standards.¹⁴⁶ Thereafter, the CCRC was invited to examine convictions in nine homicide cases involving him (including that of Michael Stone, who is serving life for the murders of Lin and Megan Russell in Kent).¹⁴⁷

The lessons learned from these cases will likely have an impact on future testimony from pediatric forensic pathologists, and indeed on their willingness to offer such testimony. Clearly, *ex ante* methods for training and certification, and requisite standards for qualification of experts, are preferable to lengthy *ex post* disciplinary processes to address pathologists' errors once they have occurred. The overall costs, both in fiscal and human terms, will likely be diminished by avoiding these errors in the first instance.

Other legal issues arising

A variety of other issues have been raised by these key cases. One problem faced by the Court of Appeal is that it cannot know the “reasons” for conviction by the jury. Assuming that a disparate and inexpert body like a jury has “reasons,” it would be helpful on appeal to know whether a conviction was based on suspect evidence.¹⁴⁸

A second issue is whether the jury is apt to dispose of clashes between experts, however the verdict may be expressed. It is submitted that if the judge is properly trained in appreciating and handling expert evidence, and in asking the right questions in the summing up, then the jury remains suitable as a mechanism for deciding whether the community wishes to apply punishment in the light of the weight of evidence it has heard. It is not necessary to find that the science is absolutely true or false.

¹⁴⁵ Paul Lewis, “Flawed evidence clears three of murder” *The Guardian* 20 June 2006 p. 7.

¹⁴⁶ <http://www.homeoffice.gov.uk/documents/Disciplinary-tribunal-DrHeath-08/>. He was reported to have resigned from his post.

¹⁴⁷ See Sandra Laville, “Murder cases review after expert criticised: Watchdog raised doubts over former pathologist Re-examination of nine convictions ordered” *The Guardian* 1 November 2006 p. 14.

¹⁴⁸ The absence of reasons may be a defect under the European Convention on Human Rights, art.6, as was pointed out by Sir Robin Auld in his Review of the Criminal Courts of England and Wales, 2001 (para. 11.52). This contention was rejected in *Cannings, loc. cit.*, para. 173.

A third issue is whether experts should be party-appointed or court-appointed. Would the latter allow the better resolution of forensic disputes? The concept is problematic in the context of an adversarial process, where a range of contending interpretations is the norm. Furthermore, this concept is criticized for reasons other than ensuring fairness to the parties. There are questions as to whether the courts are qualified to discern, in advance of a trial, who is the best person to conduct the forensic analysis. A more fundamental concern is that, given the premise of this commentary that science is inherently controversial and fluid, with scientists unable to answer scientific questions conclusively, the idea that a court-appointed expert or some form of external panel should decide would simply repeat or even compound the problem of undue legal faith in scientific finality by having the expert seemingly backed by the judge. A single expert suggests that science can only produce one true result, but science is about interpretation and probabilities rather than absolutes. So, a range of views might better capture true science than a single view.¹⁴⁹ Therefore, while not faultless, the adversarial system of competing experts, combined with legal burdens and standards of proof, in most instances provides an appropriate means to air and resolve scientific disputes and also allows for scientific innovation. At the same time, effective adversarial combat is diminished if the pool of available experts is very small and narrowly self-referring and if state legal funding for defence work is inadequate, problems that have already been identified.

The Court in *Cannings* had convenient fall guys in the experts, but one might question whether the mechanisms of criminal justice must also shoulder some responsibility. If judges feel unable to assess expert evidence, how is justice to be secured through avoiding or unduly simplifying issues and through reducing the possibility of legitimate challenge by procedural or cost diktat?¹⁵⁰ A better response would be to examine whether the training in forensic science offered by the Judicial Studies Board, or

¹⁴⁹ See John Spencer, “The neutral expert: an implausible bogey” [1991] *Criminal Law Review* 106, “Court experts and expert witnesses” (1992) 46 *Current Legal Problems* 213; Sheila Jasanoff, “Just evidence” (2006) 34 *Journal of Law, Medicine and Ethics* 328.

¹⁵⁰ As in civil cases under CPR Pt.35.7 which increasingly demands single joint experts - see Alex Samuels, “The single joint expert” (2003) 43 *Medicine, Science and Law* 9.

indeed by law schools to prospective lawyers, is sufficient. With the legal system increasingly dependent upon science and technology, educational courses on forensic process should necessarily be part of core training for all legal professionals and perhaps for law students too.

D Systemic responses to forensic error

There is sometimes a disconnect between the requirements and demands of scientific proof and scientific methodology as discussed above, and the standards and expectations placed on the presentation of expert evidence in criminal courts.¹⁵¹ To avoid this disconnect, a number of systemic responses have emerged, many due in part to a number of miscarriages of justice occurring during the 1970s and 1980s, but some of more recent origin and reflecting the increasing resort to forensic science.

The Police and Criminal Evidence Act (PACE) 1984 was designed to simultaneously codify police powers and suspects' rights. As with other substantive changes to criminal justice policy and practice during this era, this development emanated, in part, from a miscarriage of justice. In 1972, Maxwell Confait was murdered, and the police quickly arrested and charged three young persons of low mental capacity—due in large part to alleged “confessions” they made while in police custody. After their convictions were overturned on appeal, an inquiry¹⁵² into their case by Sir Henry Fisher was critical of the police, but did not question their guilt. This was followed by the Philips Inquiry, the Royal Commission on Criminal Procedure,¹⁵³ a precursor to PACE, which commissioned a great deal of empirical study around criminal investigation and civil liberties of the accused in order to situate its recommendations within a grounded context. The ultimate result of the Philips Commission's work was a complete rewriting of the law, evident in PACE and the Prosecution of Offenders Act 1975 (which founded the Crown Prosecution Service). PACE and its Codes of Practice established

¹⁵¹ Sheila Jasanoff, “Just evidence” (2006) 34 *Journal of Law, Medicine and Ethics* 328.

¹⁵² Report of an Inquiry by the Hon. Sir Henry Fisher (1977-78 HC 90).

¹⁵³ Royal Commission on Criminal Procedure, Report, (Cmnd 8092, 1981).

guidelines and clarity around police questioning and detention, specifically in regard to those who were considered vulnerable; for example, youth or those with mental health issues. The result has been improvement of police professional standards around the treatment and questioning of suspects, and also the opening up of their work through the presence of solicitors during interviews and through the compulsory taping of interviews.¹⁵⁴ Disputes around police questioning have been reduced,¹⁵⁵ though the system does of course continue to facilitate forms of pressure and disorientation,¹⁵⁶ and the Home Office and the police are currently more inclined to reduce the safeguards secured through record-keeping.¹⁵⁷

On the civil side, the Cleveland child abuse scandal during the late 1980s further exemplified the difficulties for individuals and the community when medical practitioners are not subjected to strict standards of legal due process. Between May and June of 1987, there were an inordinate number of recognized cases of child abuse emanating from Middlesbrough General Hospital in Cleveland. In particular, two consultant pediatricians at this hospital were convinced that “reflex relaxation and anal dilation” were signs of child sexual abuse, and they informed the authorities of 121 cases over a five-month period.¹⁵⁸ A number of children were placed under safety orders and removed from their parents’ homes. In the majority of these cases, the accusation of abuse was unfounded, and 96 of the original 121 cases were dismissed by the courts. An inquiry chaired by Dame Butler-Sloss uncovered the reasons for this crisis, which appeared to be mainly due to a lack of communication and information-sharing between a number of agencies involved in child protection. The Inquiry’s recommendations focused on developing guidelines for medical professionals to follow when describing and investigating child

¹⁵⁴ See David Dixon, *Law in Policing: Legal Regulation and Police Practices* (Clarendon Press, Oxford, 1997).

¹⁵⁵ See Criminal Cases Review Commission, Annual Report 2006-07 (2006-07 HC 771) p. 28.

¹⁵⁶ See Mike Maguire, “Regulating the police station: The case of the Police and Criminal Evidence Act 1984” in Mike McConville and Geoffrey Wilson (eds.), *The Handbook of the Criminal Justice Process* (Oxford University Press, Oxford, 2002) chap. 5.

¹⁵⁷ See Review of the Police and Criminal Evidence Act (PACE) 1984: Consultation Paper (Home Office, 2007).

¹⁵⁸ Elizabeth Butler-Sloss, *Report of the Inquiry into child abuse in Cleveland 1987* (HMSO, London, 1988). See Michael D.A. Freeman, “Cleveland, Butler-Sloss and beyond - how are we to react to the sexual abuse of children?” (1989) 42 *Current Legal Problems* 85.

abuse, and on increased sharing of information among police, social service personnel, and medical practitioners. The Inquiry also informed the pending Children Act 1989, which included emergency protection orders that were more open to challenge.¹⁵⁹ That change responded to an important finding of the Inquiry concerning the relatively unfettered power of social services to remove children from their homes in the first place. Therefore, the Children Act of 1989 introduced stricter controls over this procedure. Emergency protection orders could last only seven days, and could be challenged by parents after 72 hours. They replaced the Place of Safety orders, which could not be challenged for 28 days.

In further response to high-profile wrongful convictions in the England and Wales that emerged at the end of the 1980s and beyond, the government was forced to re-examine aspects of the criminal justice process, including the misuse of forensic evidence. In 1989, Sir John May was appointed to conduct a judicial inquiry into the convictions in connection with terrorist activities of the “Guildford Four” and the “Maguire Seven.”¹⁶⁰ In 1991, on the same day the “Birmingham Six”¹⁶¹ convictions were quashed, the government established a Royal Commission on Criminal Justice, chaired by Lord Runciman,¹⁶² to examine the workings of the criminal justice system, from arrest through trial to conviction and appeal, including expert evidence (more often arising from explosives analysis than from medical experts) and post-appeal procedures.

Its recommendations around post-appeal procedures were instrumental in the development of the Criminal Cases Review Commission, implemented through Part II of the Criminal Appeals Act 1995.¹⁶³ The Criminal Cases Review Commission (CCRC) is an independent public body that has the power to review convictions and sentences and

¹⁵⁹ The reforms did not extend at that time to Scotland. See Report of the Inquiry into the Removal of Children from Orkney in February 1991 (Scottish Office, 1992).

¹⁶⁰ See Clive Walker, “Miscarriages of justice in principle and practice” in Clive Walker and Keir Starmer, *op. cit.*

¹⁶¹ *Ibid.*

¹⁶² Royal Commission on Criminal Justice: Report (Cm.2263, London, 1993).

¹⁶³ See Nicholas Taylor with Michael Mansfield, “The post-conviction process” in Clive Walker and Keir Starmer, *op. cit.*; Nobles, R. and Schiff, D., *Understanding Miscarriages of Justice: Law, the Media, and the Inevitability of Crisis* (Oxford University Press, Oxford, 2000).

refer cases back to the Court of Appeal. It wholly replaced reviews by C3 department in the Home Office, which were poorly resourced, and which were seen as hampered by political considerations, since the final decision to refer a case back to the courts was taken by the Home Secretary, who might equally be criticized for a failure of criminal justice management if the courts found systemic fault.

The CCRC is widely commended as having substantially improved upon the performance of the Home Office, but it is by no means perfect. It is itself subject to resource constraints, which have resulted in unacceptable delays and a failure to encompass studies of systemic as well as individual miscarriage of justice.¹⁶⁴ Furthermore, its reviews are very much predicated upon the willingness of the Court of Appeal to be receptive to the possibility that a conviction is “unsafe,” for under section 13 of the 1995 Act, the CCRC may not make a referral unless it considers that “there is a real possibility that the conviction, verdict, finding or sentence would not be upheld were the reference to be made.”¹⁶⁵ Some view the CCRC as being in undue thrall to the Court of Appeal; some criticize the narrowness of the “unsafe” test under which the Court must operate.¹⁶⁶ The Home Affairs Select Committee concurred that the CCRC is too dependent upon the Court of Appeal in determining the outcome of its reviews and in decisions to refer or reject cases,¹⁶⁷ though the CCRC Chairman, Professor Graham Zellick, has recently argued that the test is satisfactory and that the CCRC reaches its own conclusion on whether the conviction is “unsafe,” without second-guessing the Court of Appeal.¹⁶⁸ Next, the Commission has a wide power to obtain documents from public

¹⁶⁴ See Annabelle James, Nick Taylor, and Clive Walker, “The Criminal Cases Review Commission” [2000] *Criminal Law Review* 140.

¹⁶⁵ See further Richard Nobles and David Schiff, “The Criminal Cases Review Commission: establishing a workable relationship with the Court of Appeal” [2005] *Criminal Law Review* 173; Graham Zellick, “The Criminal Cases Review Commission and the Court of Appeal: the Commission’s perspective” [2005] *Criminal Law Review* 937.

¹⁶⁶ See Michael Naughton, “Redefining Miscarriages of Justice” (2004) August *British Journal of Criminology* (Advance Access) 1. See further Michael Naughton, “Reorientating miscarriages of justice”, in: Paddy Hillyard, *et al.*, (eds.), *Beyond Criminology: Taking Harm Seriously*, (London: Pluto Press, 2004).

¹⁶⁷ For example, Home Affairs Select Committee, The Work of the Criminal Cases Review Commission (2003-04 HC 289-i) Question 5 and Question 8.

¹⁶⁸ Evidence the House of Commons Home Affairs Committee, the Criminal Cases Review Commission (2005-06 HC 1635-i) q.32. See further Duff, P., “Criminal Cases Review Commission and “deference” to the courts” [2001] *Criminal Law Review* 341.

bodies under section 17 of the 1995 Act “where it is reasonable to do so.” This, however, means that the Commission must rely upon non-coerced cooperation in discovering information from private bodies, including forensic experts not acting for state bodies. Finally, there are no CCRC in-house investigative staff. Instead, investigations are mainly carried out by the police under the supervision of the Commission. Under section 19 of the 1995 Act, the Commission can require the appointment of an investigating officer to carry out inquiries, and can insist that the investigating officer be from a police force different from the one that carried out the original investigation. The Commission can also direct that a particular person not be appointed, or, should they be dissatisfied with his or her performance, they can require, under section 20, that the officer be removed. The UK Government has stood fast against giving the Commission an ability to investigate cases with its own staff:¹⁶⁹

The Government has no intention of funding a team in the Commission whose job would be to operate as a mini police force, duplicating work which could, and should, be done by the police... .We envisage its doing investigative work from time to time but, generally the right people to investigate will be the police... .

As Malet suggests, “In short, the 1995 Act takes a trusting attitude to the police,”¹⁷⁰ and this relationship represents a major concern for the effectiveness of the CCRC. Nevertheless, the CCRC is at liberty to commission forensic testing and often does so, the main constraint being one of cost.¹⁷¹

In summary, the CCRC has been a powerful agency for the correction of miscarriages of justice in sudden infant death cases. As already described, it played a role in several prominent cases,¹⁷² it helped with the reviews in criminal cases which ensued

¹⁶⁹ House of Commons Debates, vol.263, cols.1371-72, 17 July 1995.

¹⁷⁰ Malet, D., “The new regime for the correction of miscarriages of justice” (1995) 159 *Justice of the Peace* 716, 735 at p. 736.

¹⁷¹ Criminal Cases Review Commission, Annual Report 2003-04 (2003-04 HC 9) pp. 26, 33.

¹⁷² See *R v Clark* [2003] EWCA Crim 1020; *Hussain v R* [2005] EWCA Crim 31; *R v Anthony* [2005] EWCA Crim 952; *R v Harris and others* [2005] EWCA Crim 1980.

from those decisions, and it has commented upon the growing importance of forensic issues in its workload.¹⁷³

As already mentioned, crucial to the success of CCRC must be receptivity to referrals on the part of the Court of Appeal. It has described the CCRC as “a necessary and welcome body, without whose work the injustice in this case might never have been identified”¹⁷⁴ and as “essential to the health and proper functioning of a modern democracy.”¹⁷⁵ However, this generally positive picture must be balanced with some difficulties. The leading case on the interpretation of section 13 has been *R. v. Criminal Cases Review Commission, ex parte Pearson*,¹⁷⁶ in which it was held that the meaning of “real possibility” “plainly denotes a contingency which in the Commission’s judgment is more than an outside chance or a bare possibility but which may be less than a probability or likelihood or a racing certainty.” The “assessment,” for these purposes, ultimately means whether there would be impact on a jury, and not what the appeal judges themselves would conclude concerning the strength of the case. Finally, as mentioned, there is a growing backlog in the Court of Appeal. New resources have been allocated to the CCRC, but the same has not been true of the Court, which “has barely been keeping up with the cases that the Commission refers to it.”¹⁷⁷

The Runciman Commission’s recommendations on forensic science were as radical as its ideas about post-appeals mechanisms, but they received a very difficult reception. At the heart of its preferred scheme was a Forensic Science Advisory

¹⁷³ Criminal Cases Review Commission, Annual Report 2006-07 (2006-07 HC 771) p. 28. It has not produced any recent statistical analysis of its caseload by reference to causation, but the CCRC analysed the first 80 cases it had referred to the Court of Appeal and catalogued the causes (some being multiple) as follows (Third Annual Report 1999-00 (Birmingham, 2000) p. 9): police/prosecution failings = 27; scientific evidence = 26; non-disclosure = 23; new evidence = 23; defective summing up = 11; defective legal arguments = 10; false confessions = 6; defence lawyer failings = 6. See further Clive Walker, “Miscarriages of justice: An inside job?” (Centre for Criminal Justice Studies, 12/13th Annual Review (http://www.leeds.ac.uk/law/ccjs/an_reps/13rep01.htmLeeds, 2001).

¹⁷⁴ *R. v. Mattan* (1998) *The Times* 5 March.

¹⁷⁵ *R. v. Criminal Cases Review Commission, ex parte Pearson* [2000] 1 Cr. App. R. 141.

¹⁷⁶ [2000] 1 Cr. App. R. 141 at p. 149 per Lord Bingham. See also *R (Hunt) v Criminal Cases Review Commission* [2001] 2 Cr. App. R. 76.

¹⁷⁷ Lord Justice Auld, A Review of the Criminal Courts of England and Wales (<http://www.criminal-courts-review.org.uk>, 2001) para. 12.105.

Council,¹⁷⁸ whose functions would comprise the following: accreditation of testing procedures¹⁷⁹ and setting of qualifications for staff;¹⁸⁰ development of codes of practice (covering, *inter alia*, professional ethics and duties of disclosure) and requirements as to training and accreditation;¹⁸¹ reporting on the state of forensic services; and encouragement of private sector facilities.¹⁸² Much of the scheme was welcomed,¹⁸³ especially its emphasis upon averting miscarriages of justice through standard-setting, and training and testing pursuant to it, which should surely be emphasized more than the added tragic remedy of dealing with alleged miscarriages of justice (though the Committee's progeny, the CCRC, does not ignore that aspect). The main doubts about its scheme concerned the breadth of coverage and whether adequate funding would be made available.¹⁸⁴ There were more general doubts about whether there would be the political will to improve standards in this way or to challenge the privileges of powerful professions.

The doubts were well-founded, and there have been no legislative reforms in response to the Runciman Commission's oversight recommendations.¹⁸⁵ The Government rejected any statutory model and could see, at best, "some value" in a non-statutory body.¹⁸⁶ In the absence of central direction, it was then left to the piecemeal efforts of professional bodies to fill the gaps. First, a prominent member of the forensic science profession, Professor Brian Caddy, renewed the calls for wide-ranging reform in his 1996 report on possible contamination in IRA cases processed by Fort Halstead.¹⁸⁷

¹⁷⁸ *Runciman Report*, chap. 9 para. 2.

¹⁷⁹ *Ibid.*, para. 30.

¹⁸⁰ *Ibid.*, para. 32.

¹⁸¹ *Ibid.*, para. 36.

¹⁸² *Ibid.*, paras. 34, 55.

¹⁸³ See Clive Walker and Russell Stockdale, "Forensic evidence" in Clive Walker and Keir Starmer, *op. cit.*

¹⁸⁴ See Phillips, E., "Testing the truth" and Redmayne, M., "The Royal Commission and the forensic science market" in Mike McConville, and Lee Bridges, *Criminal Justice in Crisis* (Edward Elgar, Aldershot, 1994).

¹⁸⁵ But note that the UK Accreditation Service has set produced some relevant standards for testing laboratories: ISO/IEC 17025.

¹⁸⁶ Lord Chancellor's Department, Home Office and Law Officer's Department, *The Royal Commission on Criminal Justice: Final Government Response* (Home Office, London, 1996) paras. 152, 168.

¹⁸⁷ Brian Caddy, *Assessment and Implications of Centrifuge Contamination in the Trace Explosive Section of the Forensic Explosives Laboratory at Fort Halstead* (Cm.3491, HMSO, London, 1996).

His preferred model was an official Inspectorate of Forensic Services that would have the legal right to enter any laboratory and to inquire into suspected miscarriages of justice. It would also regulate individual scientists, who would have to prove adequate qualifications before they were allowed to register and then to appear in court. At the very least, he suggested a private Institute for Forensic Sciences, covering all relevant groups and interests. The Government announced that it accepted, in principle, the recommendation for external and independent monitoring, but there was no commitment as to a time-scale for implementation or as to which model would be preferred.¹⁸⁸

The forensic professions became so alarmed by this official neglect that in 1996, the Royal Society of Chemistry established a committee under Lord Dainton to consider reform. The Forensic Science Working Group duly accepted the need for regulation via registers and codes as applied by a Forensic Science Registration Council, which would be distinct from any new professional body for forensic practitioners.¹⁸⁹ The Council was established by the Royal Society in 1999, with Home Office endorsement, with the title, “Council for the Registration of Forensic Practitioners” (CRFP). Its objectives are to ensure consistent, high standards of competence, practice, and ethics for forensic practitioners. Its mandate is to “promote public confidence in forensic practice in the UK...by publishing a register...ensuring periodic revalidation...and dealing with registered practitioners who fail to meet the necessary standards.”¹⁹⁰ In status, it remains non-statutory, self-financing, self-regulating, and independent. As a result, the CRFP’s aspiration to become the norm for those presenting expert forensic evidence in court has not been achieved, and most registrants are either fingerprint experts or scene-of-crime officers employed by the police, most of whom will never give evidence in court. It currently has 2,868 registered practitioners in 25 specialist areas.¹⁹¹ But many medical

¹⁸⁸ House of Commons Debates vol.287 col.767 17 December 1996, Michael Howard.

¹⁸⁹ Forensic Science Working Group, *Report* (Royal Society of Chemistry, London, 1997).

¹⁹⁰ <http://www.crfp.org.uk/about/whowere/>.

¹⁹¹ This includes specialists in the following areas: volume crime scene examination, anthropology, archaeology, computing, drugs, fingerprint development and examination, fire scene examination, firearms, human contact traces, imaging, incident reconstruction, marks, medical examination, nursing, odontology, pediatrics, podiatry, questioned documents, road transport investigation, telecoms, toxicology, veterinary science, while the majority are registered in scene examination. (<http://www.crfp.org.uk/NR/rdonlyres/DCD97AB7-0073-4EDA-B564-E51D844B3A8A/0/newsletter19aug2007.pdf>)

experts have not registered, since they view their regulation by the Royal Colleges or the General Medical Council to be more relevant and important.¹⁹² Thus, registration can be no more than “an indicator of competence,”¹⁹³ and the House of Commons Select Committee on Science and Technology has pointed out its manifold defects, including the fact that discredited expert witnesses would have little difficulty in obtaining registration, that being part of the registry does not of itself replace a judge’s discretion, and that conflict of interest may occur when there are a limited number of specialists in a given area, as they are in essence providing accreditation for each other.¹⁹⁴

Alongside this professionally inspired initiative, official inquiries have continued to demand similar safeguards and regulations around the provision of forensic science services. In 2005, the House of Commons Science and Technology Committee, Forensic Science on Trial proffered that there should be an oversight body (a Forensic Science Advisory Council), as well as a scientific review committee set up within the CCRC, and a Forum for Science and the Law to allow ongoing scrutiny of expert evidence and to improve communication between scientists and lawyers. The oversight body was to function in a “gatekeeping” capacity and also develop protocols for vetting scientific evidence prior to its presentation in court. The Committee argued that “the resolution of the conflicts and uncertainties surrounding the presentation of statistical and scientific evidence would be greatly facilitated by the existence of effective mechanisms to encourage interchange between scientists and lawyers and judges.”¹⁹⁵

The Home Office has finally, in principle, conceded the need for more regulation in its consultation paper, “Standard Setting and Quality Regulation in Forensic

¹⁹² Recently the General Medical Council published a memorandum outlining areas of agreed upon cooperation and collaboration between the CRFP and the GMC to facilitate sharing of information and noted that the “CRFP welcomes applicants for voluntary registration from those who are registered with the GMC.” (http://www.gmc-uk.org/about/partners/council_for_the_registration_of_forensic.asp#gmc)

¹⁹³ Lord Justice Auld, A Review of the Criminal Courts of England and Wales (<http://www.criminal-courts-review.org.uk>, 2001), para. 11.131.

¹⁹⁴ House of Commons Science and Technology Committee, Forensic Science on Trial (2004-05 HC 96) para. 135-136.

¹⁹⁵ *Ibid.*, para. 162

Science.”¹⁹⁶ But the poverty of its detail (the paper amounts to seven pages) and vision should be underlined. The need for regulation is expressed to be linked to the need to ensure good standards in the forensic science marketplace, while concepts such as miscarriages of justice are nowhere mentioned as a motivation for change. There are limitations in terms of impact—the main market affected is the market contracting with the police—and it is not clear that other provision will be covered. The preferred model is an individual Regulator, advised by a Forensic Science Advisory Council whose members are drawn from key stakeholders, expert bodies, and others with a particular interest in the provision of forensic science services to the Criminal Justice System. An interim appointee has already appeared.¹⁹⁷ Professor Caddy commented on these proposals, described as “long overdue” but lacking in breadth and independence, in his report (with Alan Rawley) on the case of Damilola Taylor.¹⁹⁸

For several reasons, it is arguable that the attempt to set up a global accreditation system such as the CRFP is a forlorn attempt. First, it is counterproductive to ignore existing professional regulation, which exists for some forensic sciences such as pathology. Second, the standards and qualifications required for a range of forensic sciences are very variable and require a wide range of expertise to discern. Thus, one size does not fit all. It would be useful to have an overall forensic science council or regulator (and, as seen, the Home Office is finally recognizing that fact, though its model of regulation remains partial), but that council or regulator should work alongside existing regulators, where available, and should primarily act as auditors of their work unless they are found to be in major dereliction of duty.

Parallel to this painfully slow progress to structural oversight, it has taken a long time to respond to the Runciman Commission’s ideas as to legal process regulation. Change was eventually triggered by the Review of the Criminal Courts in England and

¹⁹⁶ <http://www.homeoffice.gov.uk/documents/cons-2006-forensic-regulator/consultation-paper.pdf?view=Binary>, 2006.

¹⁹⁷ See House of Commons Debates vol.462 col.66ws 12 July 2007, Ann Keen; <http://www.homeoffice.gov.uk/about-us/organisation/directorate-search/crcsg/ppod/fspu/>.

¹⁹⁸ See Alan Rawley and Brian Caddy, “Damilola Taylor: An independent review of forensic examination of evidence by the Forensic Science Service” (2007) para. 65 <http://www.homeoffice.gov.uk/documents/taylor-review.pdf?view=Binary>.

Wales by Lord Justice Auld, which reported in 2001 addressing a much wider agenda, but including some recommendations about expert witnesses in criminal trials.¹⁹⁹ Auld specifically called for the regulations along the lines that had been put in place for civil cases under the Civil Procedure Rules 1998,²⁰⁰ including the need to develop a professional body to oversee forensic sciences, the use of a single expert (where there is no disagreement), a joint prosecution and defence statement prior to trial outlining respective experts' opinions, and, absent agreement, empowering the court to direct such a discussion between the experts.²⁰¹ The first draft of the Criminal Procedure Rules in 2005 contained no rules relating specifically to expert testimony,²⁰² but substantial amendments were added in 2006.²⁰³

The Rules are similar in form to the civil version,²⁰⁴ but with significant differences since it was not felt appropriate to force the defence to cooperate to the same degree as in civil litigation.²⁰⁵ Part 33 commences with a wide definition of “expert”—a person who is required to give or prepare expert evidence for the purpose of criminal proceedings. The rules then set out the duties of an expert to the court (33.2):

- (1) An expert must help the court to achieve the overriding objective by giving objective, unbiased opinion on matters within his expertise.
- (2) This duty overrides any obligation to the person from whom he receives instructions or by whom he is paid.
- (3) This duty includes an obligation to inform all parties and the court if the expert's opinion changes from that contained in a report served as evidence or given in a statement under Part 24 or Part 29.

¹⁹⁹ Lord Justice Auld, A Review of the Criminal Courts of England and Wales (<http://www.criminal-courts-review.org.uk>, 2001).

²⁰⁰ 1998 SI no.3132 Pt.35. These changes followed Lord Woolf's final report, Access to Justice (Lord Chancellor's Department, 1996).

²⁰¹ *Loc. cit.*, chap. 11.

²⁰² However, rules were always envisaged and the Criminal Procedure Rule Committee consulted on draft rules between October 2005 and January 2006.

²⁰³ Criminal Procedure (Amendment No. 2) Rules 2006 SI no.2636. The Rules are issued under the Courts Act 2003.

²⁰⁴ Civil Procedure Rules 1998 SI no.3132 Pt.35.

²⁰⁵ See Penny Cooper, “Different court; different rules” (2006) 156 *New Law Journal* 310.

The Rules (33.3) demand that an expert's report must give details of the expert's qualifications and experience, reference any literature or other information relied upon, provide a statement setting out all material facts, list all personnel involved in the examination, and explain the range and basis for opinions and qualifications to them. There are then Rules about communication and procedure to ensure full pre-trial disclosure and, if possible, agreement. A party who serves on another party or on the court a report by an expert must, at once, inform that expert of that fact (33.4). The Rules explicitly provide for pre-trial discussion between experts, which may be directed by the court (33.5). In cases where more than one defendant wants to introduce expert evidence, the court may direct that it be given by one expert only (33.7). The rules specify that a party may not introduce expert evidence without the court's permission if the expert has not complied with a direction of the court. It will be noted that the Rules fall far short of imposing a single court-appointed expert as between prosecution and defence. This device²⁰⁶ is increasingly used in civil cases (about 40%), and the courts can impose it through the mechanism of the award (or non-award) of costs. But, as already mentioned, the courts are not so willing to go down this road in more adversarial criminal proceedings. Furthermore, as already discussed, there are other concerns, relating to the nature of scientific dispute, that cast doubt on this device. The Auld Report opposed the idea of a court-appointed expert,²⁰⁷ as well as the proposal that the Council for the Registration of Forensic Practitioners, rather than the court itself, should be able to intervene or pre-qualify experts.²⁰⁸ The Auld Report was ultimately doubtful about the loss of court control and restrictions on parties in the adversarial process and saw CRFP only as an "indicator of competence."

The Court of Appeal in *R. v. Harris* has issued further guidance in respect of expert evidence given in criminal trials, which reinforces the Criminal Procedure Rules:²⁰⁹

²⁰⁶ Civil Procedure Rules 35.7.

²⁰⁷ *Loc. cit.*, para. 11.140.

²⁰⁸ *Loc. cit.* para. 11.131.

²⁰⁹ [2005] EWCA Crim 1980 at para. 271.

- (i) Expert evidence presented to the court should be, and seen to be, the independent product of the expert uninfluenced as to the form or content by the exigencies of litigation.
- (ii) Expert witnesses should provide independent assistance to the court by way of objective unbiased opinion in relation to matters within their expertise. Expert witnesses should never assume the role of advocate.
- (iii) Expert witnesses should state the facts or assumptions on which their opinion was based. They should not omit to consider material facts that might detract from their concluded opinions.
- (iv) Experts should make it clear when a particular question or issue fell outside their expertise.
- (v) If an expert's opinion was not properly researched because it was considered that insufficient data was available then that should be stated with an indication that the opinion was no more than a provisional one.
- (vi) If, after exchange of report, expert witnesses changed their views on material matters, such change of view should be communicated to the other side without delay, and, when appropriate, to the court.

In addition to the guidelines in *R. v. Harris*, the Court next gave guidance on the specific factors to be included in an expert report in *R. v. Bowman*²¹⁰:

1. Details of the expert's academic and professional qualifications, experience and accreditation relevant to the opinions expressed in the report and the range and extent of the expertise and any limitations upon the expertise.
2. A statement setting out the substance of all the instructions received (whether written or oral), questions upon which an opinion is sought, the materials provided and considered, and the documents, statements, evidence, information or

²¹⁰ [2006] EWCA Crim 417 at para. 177.

assumptions which are material to the opinions expressed or upon which those opinions are based.²¹¹

3. Information relating to who has carried out measurements, examinations, tests etc and the methodology used, and whether or not such measurements etc were carried out under the expert's supervision.

4. Where there is a range of opinion in the matters dealt with in the report a summary of the range of opinion and the reasons for the opinion given. In this connection any material facts or matters which detract from the expert's opinions and any points which should fairly be made against any opinions expressed should be set out.

5. Relevant extracts of literature or any other material which might assist the court.

6. A statement to the effect that the expert has complied with his/her duty to the court to provide independent assistance by way of objective unbiased opinion in relation to matters within his or her expertise and an acknowledgment that the expert will inform all parties and where appropriate the court in the event that his/her opinion changes on any material issues.

7. Where on an exchange of experts' reports matters arise which require a further or supplemental report the above guidelines should, of course, be complied with."

Guideline opinions of this kind are by no means rare in English legal practice, and they have appeared, for example, in relation to disclosure (as in *Judith Ward*²¹²), as well as in relation to forensic science. They represent a helpful attempt by the judges to shift legal practice, and sometimes they can flesh out matters which would not excite the attention of legislatures. However, without legislation, there is a danger that they lack strength—the guidance in *Ward* is instructive, in that thorough reform also required the passage of the Criminal Procedure and Investigations Act 1996. In the case of forensic science, it is therefore crucial to see elements of these matters established in the Criminal Procedure

²¹¹ This rule does not infringe legal professional privilege since that doctrine is confined to lawyers and their direct employees acting in the capacity of a lawyer. See generally *Three Rivers DC v Bank of England* [2004] UKHL 48.

²¹² See footnote 43 above.

Rules 2005. So, the message is that court guidance is important, but one doubts whether it can fully secure high standards in forensic science, and so legislation is also required, both in terms of structures and in terms of process.

Though the focus of this paper is upon legal responses, it should be noted that public health campaigns have been another important response to cot deaths. The Department for Health has issued a guidance booklet,²¹³ “Reduce the risk of cot death: An easy guide.” The booklet is produced in conjunction with the Foundation for the Study of Infant Deaths (FSID), which is the UK’s leading charity aiming to prevent unexpected deaths in infancy and promote infant health.²¹⁴ The campaigns have limited scientific grounding,²¹⁵ but the combination of advice has been associated with a reduced number of deaths, especially the “Reduce the Risk” and “BabyZone” campaigns launched in 1991 and 1998, which were associated with the re-evaluation of practices after the death of TV presenter Anne Diamond’s baby in 1991.²¹⁶ Another influential body, though one which addresses the professions more than the public, is the Confidential Enquiry into Maternal and Child Health (CEMACH).²¹⁷ These campaigns have advantages over reliance upon public education through litigation, even highly publicized litigation like *Clark* and *Cannings*, though litigation can of course perform a public education function.²¹⁸ Public education can take a more holistic and less emotional approach since it is not confined to the facts of a given death. Furthermore, it is possible to adopt a more precautionary principle, where, as described above, the limits of scientific proof can give way to sensible modes of child care.

²¹³ Reduce the risk of cot death (http://www.dh.gov.uk/prod_consum_dh/idcplg?IdcService=GET_FILE&dID=136917&Rendition=Web, 2007). See also Department of Health, *Safeguarding children in whom illness is induced or fabricated by carers with parenting responsibilities* (London, 2001).

²¹⁴ <http://www.fsid.org.uk/>

²¹⁵ But see Peter Fleming *et al.*, *CESDI/SUDI Report 1993-1996: Sudden Unexpected Deaths in Infancy* (Stationery Office, London, 2000).

²¹⁶ See Report of the Chief Medical Officer’s Expert Group on the Sleeping Position of Infants and Cot Death (Department of Health, 1993); Michael Green, “Time to put ‘cot death’ to bed” (1999) 319 *British Medical Journal* 697.

²¹⁷ <http://www.cemach.org.uk>. This is an independent body managed by a consortium of eight Royal Colleges and undertakes mortality surveillance work

²¹⁸ Note also that coroners act within a local jurisdiction (see below) and therefore do not tend to have the same national coverage as a Court of Appeal leading judgment.

E Reforms regarding pathology and coroners

Pathology and other medical experts

The Leishman Report (“Review of Forensic Pathology Services in England and Wales”)²¹⁹ conducted a wide-ranging study in 2003. The Report identified a number of problems with pathology: inconsistency in practices, training, and standards;²²⁰ a decline in the numbers of pathologists—52 in 1992, down to 36 in 2001; and a lack of management on the part of the Home Office. It proposed, in response, a national body to provide regulation (possibly the Forensic Science Service), plus national standards to be prepared by the Home Office. The former has been achieved through the Home Office Protocol for Home Office Registered Forensic Pathologists (2005), which defines their responsibilities. Accreditation as a pathologist on the Home Office Register was also revised in 2005.²²¹ Regulation remains a more general issue, bound up with the non-implementation of the recommendations of the Runciman Commission and the limited impact of the CRFP in this speciality.

Further important work on standards was triggered by a joint working group of the Royal Colleges for Paediatricians and Pathologists, chaired by Helena Kennedy, QC. It recommended a national protocol to ensure that all sudden infant deaths in England and Wales are investigated thoroughly, quickly, and consistently, by specialist pediatric pathologists, to reduce the risk of wrongful convictions.²²² More generally, the protocol establishes standards for multi-agency responses to every sudden unexpected infant death and details the duties of every relevant agency—medical, police, and legal. Initial home

²¹⁹ HomeOffice, http://www.homeoffice.gov.uk/documents/forensic_pathology_report.pdf?view=Binary, 2003.

²²⁰ The lack of management structure and fragmentation of the forensic pathologist service had also been noted in ongoing inquiries, which examined the conditions surrounding the multiple murders of patients by Dr. Harold Shipman, and will be discussed *infra*.

²²¹ See <http://www.homeoffice.gov.uk/documents/PDB-criteria-registration.pdf?view=Binary>.

²²² The report of a working group convened by The Royal College of Pathologists and The Royal College of Paediatrics and Child Health, Sudden unexpected death in infancy, <http://www.rcpath.org/index.asp?PageID=455>, 2004. See further Peter J Fleming, *et al.*, “Investigating sudden unexpected deaths in infancy and childhood and caring for bereaved families: an integrated multiagency approach” (2004) 328 *British Medical Journal* 331; Jonathan Gornall, “Sudden infant death” (2007) 334 *British Medical Journal* 1083.

visits by pediatricians alongside the police are considered vital. The group further proposed that expert witnesses in murder prosecutions involving the death of a baby should be tested in Plea and Directions Hearings, whereby experts should identify the issues on which they agree and disagree. The report also made recommendations for the pre-court phase of investigation, ultimately demanding national, compulsory protocols to reflect high standards of care. The protocol for the Management of Sudden Unexpected Death in Infants is being implemented through the Local Safeguarding Children Boards, established under section 13 of the Children Act 2004, as implemented by article 6(b) of the Local Safeguarding Children Boards Regulations 2006,²²³ which requires “putting in place procedures for ensuring that there is a co-ordinated response by the authority, their Board partners and other relevant persons to an unexpected death.”

One message conveyed by the Court of Appeal and General Medical Council is that there is increased scrutiny of scientific and medical expertise, with less indulgence afforded to claims to expertise or to the admission of error. A stark example is the case of Gene Morrison, whose forensic work in about 700 cases over 26 years and forensic expertise in psychology derived from no formal training or qualifications; he was convicted of obtaining money (fees) by deception, perjury, and perverting the course of justice.²²⁴ A consequence of this tougher climate has been the reluctance of experts to work in forensic child protection.²²⁵ Professor Alan Craft, president of the Royal College of Paediatrics and Child Health, has described child protection work as being in a state of “crisis” with pediatricians “not surprisingly, increasingly reluctant to act as expert witnesses in these complex cases.”²²⁶ In response, a report by the Chief Medical Officer, Sir Liam Donaldson, “Bearing Good Witness,”²²⁷ suggested that the role should be filled by multi-disciplinary National Health Service teams. These multi-disciplinary teams are

²²³ SI no.90.

²²⁴ Karen McVeigh, “Five years’ jail for compulsive liar who posed as forensic expert” *The Guardian* 23 February 2007 p. 16.

²²⁵ See Royal College of Paediatrics and Child Health, An investigation into the nature and impact of complaints made against paediatricians involved in child protection procedures (London, 2007).

²²⁶ “Need to review child protection,” *The Times*, 2 February 2004 p. 17.

²²⁷ Department of Health,
http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4140011.pdf, 2006.

meant to include “substantial paediatric, child psychology and psychiatry and/or adult psychology and psychiatry services. They should provide medical expertise to the Family Courts through the formation of groups or teams of clinicians within the same specialty or on a multi-disciplinary basis. Teams may include other specialists from within the health trust area, for example radiologists or ophthalmologists who frequently act as witnesses in family law cases, and clinicians who have retired within the last two years from active clinical practice.”²²⁸ There were several adverse comments about this idea: Why should NHS teams provide a higher standard than the current situation (Meadow worked in the NHS sector); how would experts be trained and accredited by NHS; how are the costs for the NHS to be allocated given that experts will operate nationally but will be employed locally; how are teams to work and to what extent will there be disclosure about the team deliberations; and is it fair to curtail innovation and choice in the independent sector?²²⁹

Another problem is that these changes do not directly address standards and approaches. There remains a divide in the medical profession as to whether the correct approach is to “think dirty” in dealing with infant death cases.²³⁰ That approach is clearly problematic, as similar predetermined “tunnel vision” thinking was evident in a number of notorious wrongful conviction cases in England and Wales and elsewhere. Potentially exculpatory evidence is either down played or ignored, and the facts at evidence are made to fit the police or prosecutorial theory regarding who is responsible.²³¹ In some of the baby death cases previously discussed, professionals involved in investigation essentially found what they were looking for, to the detriment of all those involved. While a critical approach to investigating baby death is undoubtedly required, what is equally important

²²⁸ *Ibid*, p. 5.

²²⁹ See Gary Wannan and M. E. Jan Wise, “Bearing Good Witness: does it withstand cross-examination?” (2007) 31 *Psychiatric Bulletin* 201. The Royal College of Pathologists has expressed support: <http://www.rcpath.org/resources/pdf/BearingGoodWitnessResponseFinalFeb07.pdf>, 2007.

²³⁰ See Michael Green, “Time to put ‘cot death’ to bed” (1999) 319 *British Medical Journal* 697. The approach might also be considered in the light of the finding of the high incidence of parental abuse by David Southall, *et al.*, “Covert video recordings of life-threatening child abuse: lessons for child protection” (1997) 100 *Pediatrics* 735.

²³¹ See Mike McConville, Andrew Sanders, and Roger Leng, *The Case for the Prosecution* (Routledge, London, 1991).

is particular care to the sensitive nature of these deaths, bearing in mind that a retrospective forensic approach raises sensitivities and consequences that are not the same as in a clinical investigation for the sake of ongoing child protection.

Coroners

Forensic pathology in cases of suspicious death is affected by the operation of the coroner system in England and Wales. The 140 coroners are independent judicial officers, appointed mostly on a part-time basis by local authority and supervised by the Ministry of Justice.²³² The majority are lawyers, leaving medical expertise to be provided by witnesses.²³³ Each coroner appoints about three officers to assist with their procedures, but their work tends to be organizational rather than primarily investigative.²³⁴

The Births and Deaths Registration Act of 1953 provides for the registration of a death prior to disposal of a body. The starting point is a Medical Certification of Causes of Death, issued by the doctor attending upon the death, usually in a hospital. In case of cremation (70% of disposals), a second death certificate signed by a doctor is required, plus a third doctor's certificate at the place of cremation. It is suggested that there is a substantial error rate in certification because of an unwillingness to investigate further the precise cause of death of the old or chronically ill, and also because of inexperienced and poorly informed hospital doctors; correspondingly, the number of autopsies is decreasing.²³⁵ The coroners must, under section 8(1) of the Coroners Act 1988, investigate the circumstances of death with respect to all bodies found within their districts when they have reason to believe the death was violent or unnatural or from an unknown cause, or if the person died in prison. Such deaths will be reported by the police, doctors, hospitals, or the Registrar of Births, Marriages and Deaths. The common circumstances are where the person was not seen by the doctor issuing the medical certificate during the 14 days before the death; where the cause of death is unknown;

²³² Coroners Act 1988 ss.1, 4.

²³³ Coroners Act 1988 s.2. For a profile, see Roger Tarling, *Coroner Service Survey* (Home Office Research Study no.181, Home Office, London, 1998).

²³⁴ See Home Office, Report on the Provision of Coroners Officers (London, 2002).

²³⁵ Michael Le Page, "Death of the autopsy" (2006) 13 November *New Scientist* 48.

where the cause of death is believed to be unnatural or suspicious; where the death happened during a medical procedure; or where the death is due to workplace factors.

If the cause of death remains uncertain, or occurred in specified circumstances, then the Registrar cannot register death (and allow disposal) until given approval by the coroner. The coroner must decide whether to hold a post-mortem and may order other inquiries prior to any decision to hold an inquest.²³⁶ A post-mortem under section 19 will involve the appointment of a pathologist. If a natural death is not confirmed, the coroner must next decide whether to hold an inquest in order to determine identity, how the person came by death, the medical cause of that death, and what cause of death is to be registered. An inquest is also compulsory for deaths in custody.

The inquest procedure is inquisitorial. There are no parties, only witnesses, and it is for the coroner to decide what evidence is to be called and to examine the witnesses.²³⁷ It follows that there is limited standing for the relatives of the deceased in terms of legal aid or prior disclosure of evidence, though they and persons with “a proper interest” can question witnesses if the coroner allows it.²³⁸ Their apparent sidelining has caused much criticism.²³⁹ Following the MacPherson Report,²⁴⁰ Home Office Circular 20/99 to the police suggested greater disclosure in cases involving deaths in police custody. Changes have also been demanded as a consequence of the interpretation of article 2 of the European Convention on Human Rights.²⁴¹

A further aspect of procedure that can cause dispute is whether the inquest should be held with a jury under section 8, though under section 8(3), a jury (of 8 to 11 members) must be assembled if it appears (a) that the death occurred in prison or in such

²³⁶ Coroners Act 1988 ss.19, 20.

²³⁷ Coroners Act 1988 s.11.

²³⁸ Coroners Rules 1984 SI no.552 r.20.

²³⁹ See Mick Ryan, *Lobbying from Below: INQUEST in defence of civil liberties* (UCL Press, London, 1996); Gwynn Davis, et al, *Experiencing Inquests* (Home Office Research Study 241, 2002); INQUEST, <http://www.inquest.org.uk/>.

²⁴⁰ Sir William MacPherson, *The Stephen Lawrence Inquiry* (Cm.4261, London, 1999) chap. 42. See Paul Matthews, “Coroners’ inquests and The Stephen Lawrence Inquiry” (1999) 149 *New Law Journal* 418.

²⁴¹ See *R. (Khan v. Secretary of State for Health* [2003] EWCA Civ 1129.

a place or in such circumstances as to require an inquest under any other Act; (b) that the death occurred while the deceased was in police custody, or resulted from an injury caused by a police officer; (c) that the death was caused by an industrial accident, poisoning, or disease; or (d) that the death occurred in circumstances the continuance or possible recurrence of which is prejudicial to public health or safety.²⁴²

The outcome of the inquest, the verdict, is written down in an inquisition.²⁴³ The possible verdicts have been circumscribed, especially to prohibit the ascription of legal liability. These limits have again been found to be too tight in comparison with the demands for the protection of life under Article 2 of the European Convention.²⁴⁴

If someone has been criminally charged with the death, then, under section 16 of the Coroners Act 1988, the inquest is adjourned until trial is complete. When the trial is over, the inquest may resume if there is sufficient reason, but more often, the investigation is viewed as exhausted by the trial, especially as the inquest may not reach a verdict inconsistent with the criminal verdict. Civil proceedings will normally follow an inquest. Public inquiries may also delay an inquest, and may indeed act as an inquest if conducted by a judge.²⁴⁵

This ancient system has been affected to some extent by the demands of article 2 of the European Convention, but it has been shaken much more violently by the career of Dr. Harold Shipman. Shipman, a family doctor in Hyde, was convicted of the murder of 15 patients in 2000 and is thought to have been responsible in total for 250 deaths.²⁴⁶ His

²⁴² See *R. (on the application of Takoushis) v. HM Coroner for Inner North London* [2005] EWCA Civ 1440.

²⁴³ See Coroners Act 1988 s.11; Coroners Rules 1984 SI no.552 Sched.4 Form 22.

²⁴⁴ *Jordan, McKerr, Kelly, Shanaghan v. UK*, App. nos. 24746/94, 28883/95, 30054/96, 37715/97, 4 May 2001; *R (Amin) v. Secretary of State for the Home Department* [2003] UKHL 51; *R (Middleton) v. West Somerset Coroner* [2004] UKHL 10; *Sacker v. West Yorkshire Coroner* [2004] UKHL 11; *In re McKerr* [2004] UKHL 12; *R (Goodson) v. Bedfordshire & Luton Coroner* [2004] EWHC 2931 (Admin); *R (Takoushis) v. HM Coroner for Inner North London* [2005] EWCA Civ 1440.

²⁴⁵ Coroners Act 1988 s.17a.

²⁴⁶ See (Dame Janet Smith) Shipman Inquiry (<http://the-shipman-inquiry.org.uk>): First Report, Death Disguised (London, 2002); Second Report - The Police Investigation of March 1998 (Cm.5853, London, 2003); Third Report - Death Certification and the Investigation of Deaths by Coroners

mundane role allowed him to subvert the system, in that he could plausibly certify the deaths of his ill patients as natural, and there was seemingly little oversight of the remarkable patterns of mortality in his practice. A variety of inquiries followed his conviction, the most important being the six reports by Dame Janet Smith.²⁴⁷

Reform is now pending. A draft Coroners Bill was published in June 2006.²⁴⁸ It seeks to systemize the appointment, regulation, and oversight of coroners. Their numbers will be reduced to 60, all full time, with a chief coroner at the head of the system, a coronial council, and an inspectorate.²⁴⁹ In terms of procedures, greater rights will be accorded to relatives, including the right to challenge the doctor's certificate and the coroner, the right of appeal, and a complaints procedure. But there are no promises of extra legal funding. The House of Commons Constitutional Affairs Committee pointed out two key failures in its report, "Reform of the Coroners' System and Death Certification":²⁵⁰

[T]he Government has made no provision in the draft Bill to remedy the critical defects in the death investigation system. There is no effective supervision of or support for certifying doctors, nor is there any mechanism for ensuring, so far as possible, that deaths which should be investigated are reported to the coroner. ...

(Cm.5854, London, 2003); Fourth Report - The Regulation of Controlled Drugs in the Community (Cm.6249, London, 2004); Fifth Report - Safeguarding Patients: Lessons from the Past - Proposals for the Future (Cm.6394, London, 2004); Sixth Report - Shipman: The Final Report (London, 2005).

²⁴⁷ *Ibid.* See further Lord Laming, *The Report of the Death Certification Review*, (Home Office, London, 2001); Tom Luce, *Review of Death Certification and Coroner Services* (Cm.5831, London, 2003); Home Office, *Reforming the Coroner and Death Certification System* (Cm.6159, London, 2004). For commentaries, see Colin Berry, "Death certification and Dr Shipman" (2003) 43 *Medicine, Science and the Law* 193; Caroline Swift, "The Shipman Inquiry" (2003) 43 *Medicine, Science & Law* 188; Robert Forrest, "Coroners – what next for death investigation in England and Wales?" (2003) 43 *Medicine, Science & Law* 125; Janet Smith, "The Shipman Inquiry" (2004) 44 *Medicine, Science & Law* 280; Tom Luce, "Death certification and the coroner service" (2004) 44 *Medicine, Science & Law* 287.

²⁴⁸ See <http://www.dca.gov.uk/legist/coronersreform.htm>.

²⁴⁹ For current oversight, see Home Office Model Coroners' Service Charter (Home Office Circular 46/1999).

²⁵⁰ (2005-06 HC 902) p. 3. See Government reply (Cm.6943, London, 2006).

Moreover, the Government has failed to nationalise the coronial system, leaving local authorities as the main source of funding. It is, therefore, likely that the current inequalities of resourcing and variable levels of service to the bereaved in particular and society in general will continue.

The former criticisms about death certification have now been addressed by a series of proposals from the Department of Health in 2007. In the first paper, “Trust, Assurance and Safety,”²⁵¹ it is proposed that doctors will be required to have a licence to practice that will be renewed every five years, that emergent strands of medicine such as applied psychology will be better regulated, and that there will be a more independent complaints system than that constituted by the GMC and other professional regulators who should apply a lower standard of proof. Thus, there is attention to the maintenance of standards and not just after the fact discipline as a means to control errors. Finally, in the paper “Learning from Tragedy, Keeping Patients Safe,”²⁵² it is proposed that the medical certificate of the cause of death should always be subject to an independent medical examiner who, if not satisfied, will refer the matter to the coroner.

It should be noted that the reform package does not specifically address forensic pathologists. One would not expect to find them mentioned in the Coroners Bill, since they are distinct in status and role. It might also be argued that the small and exclusive Home Office list of pathologists can be regulated effectively by administrative means. But one wonders whether litigation around that system will enforce change, sooner or later. In addition, pathology is employed by the defence, which is equally deserving of the highest standards. The crucial role of pathologists in criminal justice suggests that a distinct Bill would be worthwhile.

F Concluding Remarks

²⁵¹ Cm.7013, London, 2007. See also Safeguarding Patients (Cm.7015, London, 2007).

²⁵² Cm.7014, London, 2007. See also Sir Liam Donaldson, Good Doctors, Safer Patients (Department of Health, London, 2006).

As noted in the Select Committee on Science and Technology's Seventh Report,²⁵³ "where miscarriages of justice have arisen in association with problems in expert evidence, this reflects a systems failure." Given that miscarriages of justice generally occur due to the confluence of compounded errors, a systemic approach to solving these dilemmas seems fitting. The legal system in England and Wales has been unconscionably slow to react to its evident problems with forensic science, clearly outlined by the Runciman Report in 1993 and underlined by the failures in sudden infant death cases in the ensuing years. Some important changes, such as the CCRC, did flow from the Runciman Report, but a more comprehensive reform program, and one which would proactively concentrate upon standards and training rather than on more effective rectification of tragic errors, is only recently under way. The protocol put forward by the joint working group of the Royal Colleges for Paediatricians and Pathologists, discussed earlier, offers a sensible multi-agency response, which incorporates high professional standards as well as a sensitive response to sudden infant death. The government and courts have also recently begun to implement rules about expert evidence and are eventually facing up to the need for organizational oversight. Without systemic change of this kind, the danger is that standards will slip as the lessons of past tragedies grow dim. The reform program in the legal system of England and Wales offers valuable lessons for other jurisdictions. Yet its experiences also underline the lesson that the task of ensuring high standards of forensic evidence requires enduring vigilance and self-criticism, rather than a single reform deed.

²⁵³ House of Commons Science and Technology Committee, Forensic Science on Trial (2004-05 HC 96) Summary.