

**HOME OFFICE FORENSIC SCIENCE REGULATION UNIT**  
**FORENSIC PATHOLOGY SPECIALIST GROUP**  
**AUDIT OF THE WORK OF FORENSIC PATHOLOGISTS – 2010**  
**FINAL REPORT**

**INTRODUCTION**

- 1 A programme of audit was started in the 1990s by the Scientific Standards Committee of the Policy Advisory Board for Forensic Pathology (PABFP). In each audit Home Office registered forensic pathologists submitted one or more examples of their autopsy reports as issued to the coroner and prosecuting authority. The programme also incorporated other exercises, for instance to test histology identification skills and to assess the volume and type of work being undertaken by practitioners. Over the years this programme had a significant effect on the profession and examples of poor performance were positively identified. The last full case audit was held in 2003; in the following year a limited exercise was mounted to collect statistics on pathologists' methods and workloads. The 2004 exercise was the last to be organised under the aegis of the PABFP.
- 2 In 2009 the Forensic Pathology Specialist Group (FPSG) initiated a new programme of audit of the casework carried out by Home Office registered forensic pathologists operating in England and Wales. Practitioners in Northern Ireland also agreed to participate in the exercise. Although Scotland is represented on the FPSG, pathologists in this country decided not to take part in this first round of audit. The audit team consisted of four experienced forensic pathologists together with a coroner and two police senior investigating officers. The exercise was co-ordinated by an individual experienced in this task.
- 3 Each participating pathologist was asked to submit two specific case reports for audit. One was to be the first homicidal 'head injury' case investigated after 1 September 2008, while the second was to be the next suspicious death (of any type) dealt with immediately following the head injury case. A date in 2008 was chosen in order to select for audit cases which were no longer 'live'. All pathologists were informed of the audit format in March 2010, and the request to submit material was made in June. Only the report as issued to the coroner and/or police was requested, not notes or other supplementary material.
- 4 It had been agreed that anonymity was essential and participants were requested to remove all identifying detail – names of deceased and pathologist, addresses, location of mortuary, etc. – prior to submission to the co-ordinator. Although checked by the co-ordinator on receipt, the anonymisation process proved not to be 100% effective and three cases were potentially identifiable by the auditors, eg by the inclusion of the location within the body of the text. In addition, each pathology practice has its own 'house style' which, in a community as small as that of forensic pathology, may be readily recognisable. However, the audit process was not considered to be significantly compromised by these factors.
- 5 Each case was assigned a unique reference number on receipt by the co-ordinator, who maintained the sole key to the code. This key was to be broken only if identification of the case was required to prevent a potential miscarriage of justice, and then only with the agreement of the Chair of the FPSG.

- 6 Although complete anonymity had been the original intention, during the course of discussion within the FPSG it emerged that individual feedback on performance could prove useful as evidence in a practitioner's appraisal process. Accordingly each participant was informed of his or her own personal case reference numbers. By using these numbers, practitioners could be informed of their own performance on an individual confidential basis.
- 7 Due to the Comprehensive Spending Review introduced by the new coalition government and the consequent Home Office embargo on major expenditure, progress stalled in the summer of 2010. It was not until January 2011 that contracts with the audit team could be finalised and the audit proper allowed to commence.
- 8 Case reports (81 in total) were submitted electronically and passed by the co-ordinator to the auditors. Initially each case was given to two pathologist members of the team and to one of the SIOs. One case in two was assigned to the coroner. Accordingly, each auditor received about 40 cases for scrutiny.
- 9 Auditors used pro-formas to record their assessments. The pathologists assessed reports against the technical standards laid out in the 2004 *Code of Practice and Performance Standards for Forensic Pathologists* issued jointly by the Home Office and the Royal College of Pathologists. Individual elements of the report were assigned an 'A' (**acceptable**), 'U' (originally intended as shorthand for unacceptable; during the course of the exercise this designation was clarified as some **cause for concern** having been noted) or 'N' (not relevant / not applicable). Free text comment could be added as required although it was recognised this might prove difficult to summarise in the final audit report.
- 10 The non-medical auditors judged the material against criteria chosen to assess both the potential usefulness and comprehensibility of the report to the lay reader. Although they played a somewhat more limited role in the exercise, comments made by the lay auditors were considered particularly important in relation to the issues surrounding the value of the report to the end user. For simplicity the lay auditors employed a similar marking scheme and added comments as appropriate.
- 11 Auditors' assessments were returned to the co-ordinator for collation and preparation of the final report.
- 12 In the event that any member of the audit team was concerned about a case (for whatever reason) it was agreed that the case in question should be recirculated in order that other members of the team would have the opportunity to examine and, if necessary, discuss the material. During the course of this audit six such cases were identified. These were resubmitted to all four pathologists for scrutiny in line with the protocol. It was agreed that a unanimous decision of the four pathologist auditors would be required before a case would be reported as giving rise to any cause for concern.
- 13 A number of other cases were also included with the resubmitted bundle. Selected at random, none of these additional cases had given rise to any concern during the initial scrutiny and were included solely as a control on the assessment procedure.

## AUDIT RESULTS

### Introduction

- 14 The various aspects of the report were assessed against the headings detailed in Section 7 of the 2004 Code of Practice 'The pathologist's autopsy report'. It was noted that in general terms the standard of the submitted material in the current audit was considerably better and more consistent than that observed in the previous exercise in 2003. In that sense there is little of real concern to report in this audit exercise, and some of the comment which follows is necessarily rather trivial.

However, the main aim of the audit process is to drive up standards and, even if the issues identified are relatively minor (which is an encouraging situation), they still provide the opportunity for improvement which should be grasped.

- 15 When the scrutiny process was complete just one case remained in the 'some cause for concern' category, while another could not be assessed properly because it appeared to be incomplete. Every other case was graded 'acceptable'.
- 16 The sole document requested for audit was the report as issued to the coroner and prosecuting authority. The auditors recognised that other explanatory material may also have been produced by the pathologist in connection with the cases submitted for the audit. Accordingly, the limitation imposed by the audit criteria may, at least in part, have led to these two cases not being graded as acceptable.
- 17 It should be stressed, however, that an essential theme of the Code of Practice is that a pathologist's report should stand on its own. It should not require other documentation to facilitate its interpretation; such extra material can, for instance, become separated and lost from the main report when bundles of evidence are being compiled.
- 18 The comments noted in this report highlight aspects of a pathologist's case report which auditors considered particularly good, as well as areas which appear to diverge from best practice as recommended in the Code of Practice. The latter comments should not be seen as condemnatory; rather they are intended to facilitate the raising of standards overall.

#### **7.2.1 General comments**

- 19 The report or statement must be clearly laid out, section by section, in an easily read format. The Code, however, does not specify precise guidelines for this and pathologists develop their own style. There are a number of statutory declarations to be made regarding the pathologist's status as an expert witness. In many reports submitted for audit this information had been removed when the material was anonymised and accordingly no judgements were made on this matter.

#### **7.2.2 Preamble**

- 20 The preamble should set out details of the deceased and of the autopsy. Much of this information had been removed during anonymisation and no judgements were made.

#### **7.2.3 History**

- 21 In this section the pathologist is expected to summarise information provided to him before the autopsy is performed. The history has been the subject of contention for many years, with some coroners ruling that such information should not form any part of a pathologist's report. The Code requires this information to be recorded in full, but with an acknowledgement that the information has been obtained from others, rather than being the pathologist's own experience, and accordingly the pathologist cannot vouch for its accuracy or veracity.

- 22 Examples of the type of warning considered appropriate include the following form of words:

*The background to the case was given to me by Detective Inspector ... in a briefing prior to the commencement of the autopsy. The following is my understanding of the circumstances surrounding the death of Mr ...*

or:

*The information .... is my interpretation of the information given to me by ... prior to the autopsy examination. This information may, or may not, be factually correct and may alter during the police investigation subsequent to the end of the autopsy examination.*

- 23 Several cases contained a very detailed history and, while it was noted that the pathologist had received a briefing, it was not entirely clear how much of the information provided to the pathologist was second-hand.
- 24 One death had taken place abroad where an initial autopsy had been carried out. The circumstances of the incident itself were adequately documented, but auditors considered that, if it had been available, more information concerning the first examination would have been useful. In other cases the deceased had been an in-patient prior to death and it was felt that more detailed clinical history prior to the death might have been helpful – again, if it had been available.

#### **7.2.4 Scene of the death**

- 25 Under this heading pathologists are expected to note full details of the scene of discovery of the body. It is recognised, however, that in many cases the body may be removed for emergency medical treatment prior to death and the scene may therefore possess little relevance to the pathologist.
- 26 Scene visits had been carried out in a number of cases; they appeared to be useful and well documented. In particular, a scene of death in a flat in which a fire had occurred was considered to be very well described and to contain a good level of detail. In a number of cases not involving an actual visit the pathologist had been provided with photographs taken at the scene. This practice was considered useful and the information gained from these pictures well described.
- 27 Where cases involve a visit to the scene of the death it might be expected that the pathologist would use the opportunity to collect trace evidence. There was no indication in most reports that any such collection had taken place – or perhaps the fact of doing so was simply not recorded.

#### **7.2.5 The external appearance of the body**

- 28 The pathologist should record in detail the external appearance of the body, including its state on arrival in the mortuary, and the presence and distribution of bloodstaining. An inventory should be made of clothing as it is removed from the body.
- 29 The use of headings to separate different aspects of the examination is valuable in rendering the report easier to read. In several cases there was good use of headings. One case in particular included an ‘exemplary’ clinical examination of the victim carried out some time prior to the autopsy.
- 30 In two cases an autopsy had been commenced by a ‘non-forensic’ pathologist, with a forensic specialist taking over when either the circumstances or the examination itself suggested the death may not have been due to natural causes. Inevitably such ‘split’ autopsies may not always be entirely satisfactory; however, it was noted in one case that the take over had been successful.

#### **7.2.6 Injuries**

- 31 Injuries, however slight, must be described in detail, using recognised terms and appropriate measurements. Their location should be noted in relation to anatomical landmarks. Where there are many injuries a clear numbering system should be employed in the report to aid identification. Lack of suitable numbering could render subsequent reference to the report more difficult, for instance when giving evidence in court.
- 32 In one case there were many injuries and, while they were numbered, the lack of appropriately detailed descriptions was commented on by both pathologist and lay auditors. In that case the injuries included abrasions, bruises and stab wounds. It was considered that describing separately the various types of injury could have assisted the reader to read and interpret the data. It should perhaps be emphasised that this case was not particularly deficient; rather it was that the number of individual

injuries was so great that every effort should have been made to present the information in the clearest possible manner.

- 33 Auditors are fully aware of the tedium involved in describing every injury. Nevertheless, it is considered essential to describe every stab wound, to detail its location and appearance, to document its direction and internal track, and to estimate the depth to which it penetrates. Body diagrams, where included, can assist in recording the location of injuries.

#### **7.2.7 The internal examination**

- 34 The internal examination must follow the Royal College of Pathologists' *Guidelines on Autopsy Practice*. Particular note must be made of diseased or injured organs. Report sub-headings may be useful in organising the information. Organ weights should be recorded.
- 35 It may be noteworthy that this section of the Code of Practice attracted almost no comment, presumably indicating that basic dissection is now carried out to a universally good standard. In cases which appeared to have a sexual element it was suggested that an en bloc dissection of the genitalia could perhaps have been useful.
- 36 In two cases it was noted that body weights could not be recorded due to a lack of facilities in the mortuary, indicating that even today not all mortuaries are equipped to the required standard.

#### **7.2.8 Supplementary examinations carried out**

- 37 The involvement of other specialists should be included under this heading, and the results of their examinations noted. Most cases will involve toxicological examination, and specialisms such as paediatric pathology, radiology, etc will be included where appropriate.
- 38 One branch of this audit focussed on head injuries and it had been anticipated that a specialist neuropathologist would be involved in every such case. This, however, proved not to be the situation, with a number of forensic pathologists performing their own such examination. The forensic pathologist appeared to have carried out the neuropathology in 15 out of the total of 48 cases in which head injury was cited as a cause of death (due to anonymisation of the material it was not always possible to be certain who had performed this aspect of the investigation). While it is accepted that in the ideal situation every head injury case would involve examination by a neuropathologist, the reality appears to be that there are insufficient such specialists to carry out the work. Accordingly some forensic pathologists may carry out neuropathology themselves.
- 39 Auditors expressed concern that certain specialist tests, for instance for the presence of  $\beta$ -APP, should be performed only by appropriate experts routinely performing such tests, whose standards were regularly monitored through quality assurance programmes. Not involving a neuropathologist in head injury cases, therefore, was considered sub-optimal.
- 40 It should be stated, however, that the audit did not reveal any cases in which neuropathology personally undertaken by the forensic pathologist appeared to have resulted in an inadequate investigation. In fact, in at least one of these cases auditors observed that the neuropathological examination appeared to be very detailed. There was, nevertheless, no evidence in any of these cases that  $\beta$ -APP testing had been performed.
- 41 A small number of cases involved the death of babies or infants. It was noted in these cases that very full investigations had been carried out, involving paediatric pathologists and a range of other specialisms including, for instance, metabolic and genetic studies. Other specialists were consulted as appropriate, for instance in one case effective use was made of an expert in lymphoproliferative disease.

### **7.2.9 Commentary and conclusions offered by the pathologist**

- 42 In this section the pathologist should explain the cause and mechanism of the death, using language which is precise and accurate in medical terms but also readily comprehensible to the lay reader. It is primarily from the commentary and conclusions that the police and prosecuting authorities will have to assess the relevance of the medical evidence to their consideration of the case. Accordingly the non-medical auditors focussed particularly on this aspect of the report. Almost inevitably this section gave rise to the most comment, by both the pathologist and the lay auditors.
- 43 There was some concern at the lack of discussion of what appeared to be potentially significant anal injuries in one case, which the scientific findings suggested may have involved a serious sexual assault.
- 44 One case was concerning in that it contained no conclusions, with auditors considering the report to be incomplete. Under the protocol used for the audit (asking practitioners simply for a copy of the case report issued to the coroner and police) it is difficult to determine whether this report was deficient, or whether further supporting material would have been available had it been requested.
- 45 Another case was similar in that no neuropathology, toxicology nor histology reports were available; there was no indication that this was an interim statement although it was stated that a further report might be issued when the toxicology report became available.
- 46 One report had been issued prior to completion of the neuropathological examination; in this case it was not clear whether the author of the report was to undertake this examination him/herself. However, the author made clear (in relation to a decision not to dissect the face) that no other person was being sought in relation to the attack and that no criminal trial would follow. That being the situation it may be argued that the decision to postpone further work was a justified conservation of resources.
- 47 Most case reports contained entirely satisfactory commentaries and conclusions. Auditors commented on two in particular. A death involving alcoholic ketoacidosis was considered to have been difficult but very well done. The other involved a head injury to an individual with advanced alcoholic liver disease – this was a complicated case which had been very well explained.

### **7.2.10 Identification of the cause of death**

- 48 This is normally expressed in the manner approved by the Registrar General, although it is often important to elaborate on the information for those who may be unfamiliar with the format. In a small number of cases the coroner auditor suggested that the cause of death should perhaps have been expressed in a different form.

### **7.2.11 Retention of relevant samples during the examination**

- 49 The report should state clearly what materials have been retained and where they are stored. Several reports stated this clearly, but because in others the information had obviously been redacted during the anonymisation procedure, no judgements were made.
- 50 It was stated in one case that no samples had been retained, eg for histology or toxicology, once it had been determined that the death was due to natural causes.

### **7.2.12 Comments on the layout or format of the report**

- 51 Reports were checked for ease of reading, logic of the setting out of the findings, typographical errors, etc. As with the Commentary and Conclusions, the lay auditors' comments were particularly useful. It was noted that some cases recorded as very full and detailed by the pathologist auditors were actually considered less 'user-

friendly' by the lay members of the team. In the main, however, both clinical and lay auditors came to similar conclusions about layout and format.

- 52 The length of the reports varied considerably – although there were no examples of the very brief 2-3 page reports not uncommonly submitted in earlier audit exercises. The nature of the investigation dictates to a large extent the length of the report; however, while recording every clinical detail may be necessary, care must be taken to ensure the report is properly accessible to non-medical readers.
- 53 The practice of some pathologists is to place certain words or phrases within inverted commas. Often the medical term is given, with the everyday description added in inverted commas, although in one or two instances much wider use of this device was found. The logic behind this was not always clear and it was considered that it did not always assist the clarity and flow of the text.
- 54 While misspellings and typographic errors are not necessarily of major importance, the danger exists that they may induce an impression that the writer has not taken enough care with his or her work. Citing examples of such minor errors may be invidious; however, in one case the heading to the report gave the age of the deceased as 68, while in the text the 'stated age' was 66 years. In another a female deceased was referred to in one section of the report as 'he'. In yet another case blood ethanol concentration was recorded as 244mg/100ml in one section of the report, but 249mg in another part. Misspellings were rather more frequent than might be considered desirable, for instance 'catecholamies' for catecholamines.
- 55 Where a further examination has been carried out by another pathologist, eg for the defence, some practitioners add a rider to their reports to the effect that they have 'no reason to suppose that Dr .... reached conclusions different from my own'. It was agreed some years ago that comment of this nature was inappropriate and should not be included. If any such comment is included it should be on the lines of 'Dr .... and I both observed similar anatomical findings'.
- 56 This was the first occasion on which a Home Office sponsored audit has included pathological reports from outwith England and Wales. Although every pathologist should be working to the appropriate Code of Practice, it appears that certain modes of expression or ways of working may be specific to the jurisdiction within which the practitioner is operating. Allowance for these differences has been made where possible.
- 57 Time and again auditors were reminded that the forensic pathologist's report is intended for use by more than one audience. It must be technically sound and acceptable to other medical professionals, while remaining accessible for the lay reader who will need to understand its substance and implications. Matters of importance to the investigation, for instance, bruises and injuries, should be detailed and carefully described in a logical manner. Conclusions must be spelled out in terms which can be understood by anyone who will need to use the report. The cause of death must be stated definitively. Where this is not possible the pathologist may be able to offer different possibilities, although sometimes the cause must remain unascertained. In any event the reader should be left in no doubt that the pathologist's conclusions have been properly and thoroughly considered, and then clearly expressed.

## **CONCLUSIONS AND FUTURE PLANS**

- 58 The case reports submitted for this exercise were almost all of a very high standard. While a number of different issues have been highlighted in this audit, the majority are of relatively minor importance. It seems probable that previous audit has been one of the factors underpinning the quality of work being produced by forensic pathologists today, and this argues strongly for the audit process to operate in a continuous cycle.