4. Overview and discussion

Overview and discussion

In 2003, a report of a fundamental review into death certification and investigation in England, Wales and Northern Ireland was presented to Parliament from the Home Office that included the statement:

> "There is, indeed, a general lack of evidence about the utility of and justification for coroners' autopsies on the scale on which they are practiced in England and Wales. If the 121,000 autopsies a year that are now performed were surgical procedures carried out on living people there would long ago have been an evidence base compiled to assess the utility and justification for the scale of intervention."[1]

The Shipman Inquiry made a similar point about the lack of audit of the coronial autopsy, and also raised the question of whether too many unnecessary coronial autopsies were being performed[2].

The present NCEPOD study is a contribution to an evidence base concerning coronial autopsies. With an ever increasing proportion of all deaths in England and Wales being referred to a coroner, it is important to view the coronial autopsy objectively and make recommendations that could improve the standard of practice and reporting. In the preceding chapters of this report, many of the issues have been indicated and discussed in detail, with recommendations presented. In this section, the fundamental purpose of the coronial autopsy is reflected upon, and the overarching aspects that emerged from the study are presented along with some broader recommendations. Finally, the future of autopsy practice is discussed.

4. Overview and discussion

The purpose of the coronial autopsy

What is the purpose of the coronial autopsy examination? Statutorily, it is to determine the medical cause of death; but as detailed in the Introduction it can and does have layers of additional significance in the clinicopathological depiction of the final events of a person. Schedule 2 of the Coroners Rules simply provides for the overall structure but not the detailed content of the autopsy report, so that there is no specific answer to the question of how much information is meant to be set out in an autopsy report. The original schedule of items to be included in a report does not, for example, include a clinicopathological correlation. Viewing the study autopsy reports and the wide range of detail and commentary included within them, one can draw up an algorithmic approach which includes a five point grey scale of incremental quality. The range of purposes of the coronial autopsy may be (although not mutually exclusive):

A1: To consider and exclude homicide.

A2: To consider and exclude unnatural death.

B1: To provide an acceptable - though not necessarily correct - medical cause of death for registration purposes.

B2: To provide the correct medical cause of death and accurate data for national statistics.

B3: To provide an account of sufficient, accurate detail to address any concerns from the next of kin and to be useful to them.

B4: To provide detailed information for medical audit and explanation of events following medical interventions.

B5: To provide the basis for a publishable case report.

Under section 19 of the Coroners Act, the autopsy may provide a cause of death that renders an inquest unnecessary. This is the commonest situation in coronial autopsy practice (although there are no published data on the proportion of section 19 versus section 20 coronial autopsies). Thus the purpose of the autopsy might be defined as fulfilling levels A1, A2 and B1 in the above list.

Within the study data, examples of all these levels of quality were observed (with the exception of the first (A1), as homicide cases were excluded), and this exemplifies the lack of standardisation of the process. In the RCPath Guidelines, the purpose of all autopsies is to address all questions that may be posed by interested parties regarding a death and ultimately satisfactorily explain how the patient died[3]. The parties include, in principle, not just the coroner, but the family, any clinicians involved in the deceased's care, the hospital or general practitioner and the pathologist. That implies that all autopsies should be undertaken at least down to levels B3 and B4 in the above list. But perhaps level B2 is what most interested parties, most of the

time, would wish to see. The fundamental conclusion of this study is that there is a very wide range of reporting standards in coronial autopsy reports whereas a nationally agreed - and funded - standard is desirable. The figure of 18% (310/1,691) of all cases where the advisors questioned the accuracy of the given cause of death, indicates the need for a proper discussion of what level of quality product do the professions, government statistics, and the public want from coronial autopsy reports. Since coronial autopsies are the basis of 22%[4] of all causes of death for ONS purposes, this is an important question.

NCEPOD and other inquiries (e.g. The Shipman Inquiry) do not believe that sufficient consultation has been undertaken to review the purposes of the coronial autopsy in its broadest contexts. The system for coronial autopsies has continued for decades, unmodified, unaudited and using old 'Rules'. Because it lies outside the governance of the NHS - which has seen extraordinary commitment to raising standards through guidelines and target imperatives across all aspects of medical practice - it has been seen as separate and not worthy of inspection. This has to change, and is changing. In particular, the impact on families of autopsy diagnoses needs to be taken more seriously. Families wish to know how their relatives have died, and be given more information than they currently receive. There needs to be a national discussion and consensus on what the coronial autopsy is for, when it should be ordered, and what level of quality is expected from it. The system of death certification and the coroner service is currently in the process of reform, there having been two recent reviews[1,2]. There is an opportunity now to make statutory provisions for improvements. The distribution of cases amongst pathologists, i.e. should there be more specialisation of autopsy practice, as is happening with diagnostic surgical pathology, needs to be re-examined. NCEPOD has consistently called for the most appropriate pathologists to examine particular cases, and this is discussed further below.

4. Overview and discussion

The advisors' position

The advisors for this study were drawn from interested pathologists and coroners, who may be presumed to be more than averagely concerned about the quality of the coronial autopsy as they applied to help NCEPOD with this study. The standards they were using were based on best practice guidelines which, in turn, were drawn up by a professional body that had reviewed all existing guidelines (including those in other countries). Thus the advisors' set point for quality would be that the autopsies and their reports that did not reach somewhere between levels B1-B2 in the previous list above would be deemed unsatisfactory. In 18% (310/1,691) of the cases in the study, the cause of death did not take into appropriate account the clinical course and autopsy findings as presented in the report and in the supporting documentation; that is unsatisfactory. The fact that the majority of cases did reach that point as assessed from the paperwork indicates that there is a basic body of quality. Nonetheless it has to be acknowledged that reading the paperwork of an autopsy is not the same thing as assessing what really happened in the mortuary, nor whether the findings and cause of death are, in an absolute sense, true. Autopsy work is unusual in that, unlike surgical procedures, there are usually no peer observers present. There may be trainees, and there will be one or more anatomical pathology technologists in the mortuary, but uncommonly is there a peer pathologist who might criticise the examination and question the conclusions derived from them. The coroner, who is usually only legally trained, is obliged to take the autopsy report at face value if it presents a natural cause of death and there are no features to lead the coroner to suspect that the death was 'unnatural'.

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What determined the quality of an autopsy report?

The main factors that determined the quality assessment in the opinion of the majority of the advisors were those that have been documented in the results of this study:

- a good case history in the autopsy report;
- comprehensive external examination of the body;
- comprehensive and complete internal examination;
- taking samples for further analysis as appropriate to the case;
- providing a clinicopathological correlation that explains the death and what led up to it;
- giving a cause of death that corresponds with the case history and the findings at autopsy.

These are all factors that previous NCEPOD reports have emphasised, and in those and in the present study, the undue brevity of many reports was noted and criticised.

There was a wide range of report styles and lengths, from short one page bullet point reports to multi-page documents full of detail and evidence of much thought going into the production. Since the more synoptic reports lacked several of the elements that the advisors considered to be important, these were more likely to be graded as less than satisfactory. The overwhelming impression conveyed from reading the nearly 1,700 autopsy reports in this dataset was of the variation in attitude of the pathologists to the job in hand. At one extreme are the one page perfunctory reports that provide a cause of death without any case history, detail regarding the autopsy examination, or any correlation of known pre-mortem events. As indicated in the results, some of these were considered by the advisors to be misleading and possibly incorrect in even excluding unnatural death.

At the other extreme there were a number of autopsy reports graded as 'excellent' which showed how carefully the pathologist had considered the case and attempted to resolve all the issues raised by the death. All these reports included the critical clinicopathological correlation. The use of histopathology was variable. There were undoubtedly some cases where histopathology was not done and should have been.

4. Overview and discussion

The overall quality of autopsy reports

The study examined the autopsy reports, and supporting documentation that came from coroners' offices, concerning all deaths (in the community and in hospitals) over a one week period. Importantly, the study was retrospective and the relevant coroners and pathologists were not aware at the time of autopsy that the reports would be examined. The overall picture that emerged from the examination of autopsy reports from all coronial autopsies (with the exception of suspected homicide) was of unacceptable heterogeneity. This lack of standardisation is the fundamental point and the basis of the principal recommendation that NCEPOD makes.

The quality of the autopsy report was judged to be satisfactory in 52% (873/1,691), good or excellent in a further 23% (382/1,691); but was poor or unacceptable in 26% (436/1,691). Satisfactory indicates that the basic clinical question over cause of death appears to have been answered, and that the autopsy report fulfils its main purpose of documenting the cause of death but without much elaboration or detail that distinguishes a good or excellent report. Unacceptable means that the autopsy report does not sufficiently explain the cause of death (or it is evidently wrong) and that the report falls below an acceptable standard that the advisors believed that the public would expect, calling into question the practice of the pathologist and the constraints of the system in which they operate.

Reflecting the 2003 report of a fundamental review into death certification and investigation in England, Wales and Northern Ireland[1] , if one quarter of all surgical procedures undertaken on the living were deemed, by peers, to be poorly or unacceptably badly done, there would be a public outcry. The fact that there is no outcry is a simple manifestation of the fact that families are unaware of the variable quality of the autopsy procedure. Given the invasiveness of the autopsy, the taboo surrounding the procedure, and that it should not be done lightly, one might expect that the autopsy process and the whole system in which it operates would function to a high standard.

Occasionally, a family's dissatisfaction with an autopsy diagnosis surfaces to public notice. Anecdotally the pathologist advisors knew of legal complaints against hospitals and individuals based on what turned out to be erroneous and misleading autopsy reports. Senior clinical colleagues may approach hospital pathologists with what they consider to be unsatisfactory coronial autopsy reports on their patients following examination in another mortuary away from the hospital. It would benefit all interested parties if clinicians could observe autopsies, and discuss the findings with pathologists, more often. They are entitled to do this under Coroners Rules 7 & 8, but often are not informed of the place and time of the autopsy; and may have clinical commitments that prevent their attendance. This study did not investigate whether or not clinicians attended autopsies on their patients. But overall there has been no public protest over quality. All this reflects the lack of audit of the procedure.

Specific points of concern from the autopsy reports

There were particular issues that the advisors considered important:

- one in four autopsy reports was judged as poor or unacceptable;
- in one third of mortuaries, the pathologist failed to inspect the body before the anatomical pathology technologist commenced opening it and removed the organs;
- in one in seven cases the brain was not examined;
- in one in sixteen cases, it was deemed that histology should have been taken in order to determine or fully elucidate the cause of death;
- in nearly one in five cases, the cause of death as stated appeared questionable;
- the extent of examination of the heart, in those with abnormalities that might be due to a cardiomyopathy (some of which are inherited), was poor;
- the extent of examination of patients with known epilepsy who died unexpectedly was poor;
- the very elderly may not have been examined as carefully as younger subjects;
- the poor recording of the presence or absence of external injuries;
- the extent of examination of decomposed bodies;
- poor communication between coroners and pathologists;
- apparent gaps in the information provided to the pathologists by the coroner.

Several of these points require further discussion.

One quarter of the reports was judged as poor or unacceptable and, in nearly one in five, the stated cause of death itself was questioned. For medical processes, these are large rates of poor quality and reflect the historical lack of audit over the coronial autopsy. Fundamentally it reflects the gulf in attitude between the NHS, which looks after most people during life, and the Home Office or Dept of Constitutional Affairs which manages the investigation of their deaths through coroners: the only common element is the cadre of pathologists, who are well aware of the different standards expected in their NHS versus coronial practices.

The under use of histopathology and other investigations, the frequent poor examination of the heart in cases of sudden unexpected death, and the insufficient evaluation of patients with epilepsy who died, all reflect a lowered set of expectations of accuracy in cause of death. This level would not be tolerated by clinicians who obtain a consented autopsy, clinicians who are often puzzled by the apparent dual standards displayed by pathologists when undertaking autopsies with the production of a cause of death acceptable to a coroner.

From the data in the study, two other groups of deceased patients appeared not to be well served by the coronial autopsy process: the decomposed person and the very elderly patient, where the reports suggested that the examinations were often cursory. The former may have little to show pathologically, and expectations of useful positive findings are depressed. The latter often have too many positive pathological findings (as a consequence of age) and it may be difficult to determine which, if any, are directly relevant to the cause of death. A more precise remit for the autopsy in these cases would be beneficial, to focus the questions that are being

asked concerning their deaths.

A large number of autopsy reports on deaths in the community lacked descriptions or exclusions of external injuries. It is possible that some of these patients had suffered significant injury that contributed to death, whether from spontaneous falls or even possibly by the hands of a third party. The remarkable proportion of autopsies 14% (238/1,691) where the head was not opened and the brain not examined reinforces the impression that significant pathology may be going unnoticed. Anecdotally, the pathologist advisors had collective experience of second autopsies, following a limited coronial first examination, where the head was finally opened to reveal the actual cause of death, e.g. intracranial haemorrhage, in contrast to the first cause of death of ischaemic heart disease based on unconvincing findings.

The practice of pathologists arriving at a mortuary to find that the bodies for examination have already been opened and the organs removed is evidently still widespread from the data in the study. Nearly all the advisors, irrespective of profession, found this practice poor, as it has the potential to remove significant indicators of certain pathological conditions and thus reduce the quality of the autopsy and its report. The possible reasons for the practice have been adduced, the main one probably being pressure of time on the pathologist. Like the non-opening of the head in many cases, this issue requires a wider discussion amongst all the interested parties. Unlike the head issue, however, the only proper conclusion should be that it should cease and that the pathologist must be present when the autopsy commences.

Finally, much comes down to communication between coroners, their officers, and the pathologists they request to undertake autopsy examinations. As well as the often defective information provided by the former, there is no uniform standard regarding what the pathologist is, or is not, expected to find out for him/herself regarding previous relevant medical or scene of death history. As evidenced from the detailed histories and clinicopathological summaries in some reports, there is a body of pathologists who are committed to performing at a high level, and answering all the questions raised by a death. And there are others whose performance level appears to be more perfunctory. The implicit and overt expectations of those who request and those who perform autopsies must be relevant here, and fundamentally reflect the basic ambiguity: what is the coronial autopsy for, and who are the interested parties?

4. Overview and discussion

Future practice

A start to improve future practice has been made. There was the production of the Position Paper 'Reforming the Coroner and Death Certification Service' in 2004[5]. In mid-2006, a draft Bill on reform of the coronial system was promulgated[6], which should become an Act and pass into practice in 2008 or 2009. It is hoped that widespread consultation among all the interested parties takes place, to address in particular the question of the required level of quality for an autopsy service, and for this to be adequately resourced and funded. In the view of NCEPOD, it is regrettable that reform of the death certification system has not been included alongside coronial reform. How causes of death are considered and which deaths are referred to a coroner are two sides of the same coin. To improve the management of death requires improvement of both aspects.

In the meantime, there could be a more standardised approach supported by audit. And parts of the existing legislation could be utilised more to enhance the quality of autopsies and their reports. For example, Coroners Rule 6 states that the examination should be made "by a pathologist with suitable qualifications and experience and having access to laboratory facilities". This permits specialisation, whereby particular types of cases are examined by those who have more knowledge and experience of the types of pathology found in a particular scenario of death. It already happens for forensic (suspected homicide) cases and, increasingly, paediatric cases. It also increasingly happens with maternal death although there was none in this study sample. The Confidential Enquiry into Maternal and Child Health has consistently argued for specialist pathologists to perform these often difficult cases[7]. The data from this study show that specialist neuropathologists and paediatric pathologists achieved higher quality ratings than other pathologists. Other categories identified that could benefit from more specialist input include sudden unexpected cardiac death which might be inheritable cardiomyopathy, epilepsy, and illicit drug-related death. Secondly, under section 20 of the Coroners Act, 'special examinations' by pathologists who possess 'special qualifications' may be requested to undertake autopsies that require further analysis of samples from the body, such as histology and toxicology (see Glossary). This also supports the concept of increasing specialisation.

Costs have been alluded to in this report. Not only are there costs for histopathology and other analytical investigations, there are also the basic fees paid to pathologists for performing the autopsies and providing reports (see Glossary). These come out of local authority budgets, and naturally there is pressure to contain costs. The expansion of specialist autopsies as indicated above, though beneficial to families and national statistics, will cost more than the present pattern of coronial autopsies. A second future cost pressure that follows from the Recommendation on continuing professional development (CPD - below) would be the time allotted, as 'supporting activity', for pathologists to undertake CPD on autopsy practice. This would be borne by trusts in the case of hospital-employed pathologists. Many of the recommendations contained in this report have increased cost implications, and cannot take place just by expecting pathologists and coroners to modify their behaviours. The local authority and trust budgets need to be factored into desired improvements in the coronial autopsy system.

As several pathologists and coroners have commented when considering the variable quality of the autopsy process: "What do you expect for £87.70?" (the current fee for a standard autopsy without further investigations).

Continuous professional development for pathologists and coroners

This is the first time that coronial autopsy reports have been reviewed by the two interested professional groups in conjunction. The advisors met on many occasions in varying combinations of pathologists and coroners, to assess the cases in the study. After the first few sessions, all volunteered the opinion that the exercise of reviewing the reports of a wide range of pathologists covering a wide range of cases was professionally very helpful to them. The consultant pathologists realised what a wide range of approaches other consultant status colleagues utilise, some poorer and some better than their own practice; and all indicated that they would change their autopsy examination and report standards immediately, to improve their own practice. The SpR pathology advisors learned how varied their seniors could be when examining a range of death scenarios. The coroners observed autopsy reports that had been accepted and acted upon by other coroner colleagues, of a wide range in quality, and learned that there are many ways of producing results that support (or not) the given causes of death; they indicated they would be more questioning of their local pathologists in future. Thus reviewing this material is an excellent form of training and of continuing professional development. It should become part of pathologists' and coroners' training exercises and, once in post, regular mutual audits within departments or between jurisdictions carried out, in order to maintain the critical attitude and high professional standards.

This supports one principal recommendation; that regular audit of autopsy reports should be introduced nationally. With agreed national standards of what should be contained in such reports, this will both reduce the great variation and raise the mean standards of quality.

Autopsy training and histopathology

With the decline of the consented autopsy, the bulk of autopsy experience for those in pathology training comes through coronial work. During training, the numbers of autopsy cases actually performed by trainees is variable; the RCPath sets a minimum of 100 cases in the guidelines for those preparing to sit its part 2 (final) MRCPath. It is uncommon for trainees to have sole responsibility for a coronial autopsy case, yet once they have achieved consultant status, they may be expected to undertake a variety of cases, and may have a sharp learning curve.

A joint statement from the Coroners' Society of England and Wales, and the Royal College of Pathologists summarised the need for autopsy experience through coronial work and made particular note of the responsibility of the supervising consultant who is accountable for the case[8]. Most autopsy training is now, of course, based on coronial autopsies, as consented autopsy numbers have declined. Reports from the histopathology training committees indicate that in most of England and Wales, access to such cases is satisfactory. However, in London and the south-east there are significant problems, mainly because of the preponderance of public mortuaries which are not affiliated to hospitals, and therefore not used for training.

A related issue is taking tissue for histopathological examination when it is critical for diagnosis. As the study showed, many cases could have been better evaluated had histopathology been performed. Factors acting against the taking of samples include:

- cost;
- lack of need if an acceptable registerable medical cause of death can be stated, even if it is not the most accurate cause of death;
- the workload implication for the coroner's office in communicating with the next of kin.

The practical outcome is that, as demonstrated in the study and contemporary surveys, there is less tissue analysis being done. In consented autopsies there is usually permission given for microscopic examination of all relevant organs; but such cases are much less common than they were. How are trainees going to get experience in the detailed analysis of tissues from autopsy, so that when it matters, they can make a considered opinion on the findings and therefore on the cause of death? This also needs a more widespread consultation, including the public who should be informed of the importance of taking tissue samples, and retaining organs when appropriate (whether for diagnostic, academic research or future teaching purposes), so that the results of the examinations on their relatives can be as complete as possible. Accuracy and quality may be compromised by not taking tissue samples; and when this is made clearer, NCEPOD believe that the public would support more such investigations.

Impact of existing autopsy practice guidelines on performance

Since there have been concerns about coronial autopsy practice going back to at least 1970 as highlighted in the Brodrick Report[9] (long before1989 when NCEPOD started reporting), why is it that there has not been a systematic improvement in the quality of autopsy reports and diagnoses?

The Royal College of Pathologists is an advisory body, not a statutory regulatory body like the General Medical Council. For more than a decade it has produced guidelines on autopsy practice and autopsy report depiction. They are descriptions of an idealised best practice, aimed towards fulfilling the stated objective of addressing all issues raised by a death; they have never been endorsed by the coronial system of England and Wales. There is no statutory obligation for pathologists in the UK, some of whom will not be members or fellows of the RCPath anyway, to read, let alone follow these recommendations. There is no obligation on the part of coroners to demand autopsy performance and report quality to these levels. All this reflects a lack of audit of the product of the autopsy. Pathologists (in the UK at least) pass a difficult exam, of which the autopsy component has become more stringent in recent years[8]. With reinforcement they maintain standards, but without a defined set of quality demands and standards against which to match practice, it is easy to cut corners in diagnostic accuracy. UK based pathologists will doubtless wish to maintain the high standards to which they were trained, but extraneous factors including the lack of an agreed set of quality standards, an absence of audit, poor resources and limits imposed by others makes it all too easy to allow standards to fall so that the fullest outcomes from autopsies are not realised.

This NCEPOD report goes beyond all the previous reports that have considered autopsy reports, from both coronial and consented autopsies. It has a wider remit in considering all deaths, not just those in hospitals. For 15 years, the NCEPOD reports have exhorted the performance of more autopsies, better communications with clinicians, better consideration of medical interventions in leading to death, better examination of the body and organs, more histopathology studies, more clinicopathological correlation evaluation, and better statements on causes of death. There have been some notable improvements documented, from analysis of in

hospital perioperative deaths: a trend of following the guidelines on autopsy reports after 1993, and the greater inclusion of operation data in cause of death statements. But the numbers of reports that are categorised as poor or unacceptable does not seem to have changed, and the restrictions on diagnostic organ retention and taking tissue samples have increased judging from the current sample.

It is NCEPOD's belief that at least some of the reasons for this include the lack of unitary oversight on death certification and coroners, with no single department or body taking responsibility and accountability. Indeed, the service is part local and part national. Pathologists, for the most part, operate within the NHS. Coroners are appointed by local authorities, answerable to the Lord Chief Justice and, to the extent that they are managed at all, come under the Department of Constitutional Affairs. The Registrars of Death answer to the Office of National Statistics which in turn comes under the aegis of Her Majesty's Treasury. With such disparate and fragmented systems, it is perhaps small wonder that bringing about effective change is so difficult. However, perhaps a more fundamental issue concerns the role of the autopsy in health care and the reasons for the decline in the consented autopsy. Issues such as the Bristol and Alder Hey inquiries, the Shipman case and a general diminution of trust in medical professionals by the general public have all played their part in refusals of consent for autopsy (or is it that clinicians are now too timid to ask for a consented autopsy?). If the future of the consented autopsy is a bleak one, and the sole means of audit of death certification is to be the coroner's autopsy, it is important for the necessary statutory provisions to be enacted to make this 'fit for purpose' and effective. What is not appropriate is to criticise the present coroner's system for failing to provide that for which it was never intended or designed.

4. Overview and discussion

Final conclusion

NCEPOD has reviewed a medical process - the coronial autopsy - which affects more than one fifth of the population when they die. This process has not been reviewed on this scale and in this systematic way before, and the conclusions are evidence-based. A significant proportion of the process is well done in terms of the quality of the autopsy reports, but it is imperative that improvements be made so that the service becomes high quality. It is evident that the coronial system, as presently constituted, cannot bear many of the expectations placed upon it.

The recommendations, if implemented, will effect positive changes for the coronial system, the pathologists working within it, and bereaved families. Since about half of all deaths referred to a coroner result in an autopsy, these changes are central to any reform of the whole system. Public money is going to continue being spent on the investigation of death, and probably the total costs will increase. The public deserves value for money.

Reform requires a consideration of the purpose for which these autopsies are performed, as well as an overhaul of the whole system, with the introduction of audit and accountability. The incorporation of pathology training needs to be more formally addressed since this is critical for future practice. Such changes involve a national debate among all the interested parties and will necessitate statutory requirements: fundamentally, what level of quality in the coronial autopsy service does the public want? Is it right that the coroner's autopsy should have a broader purpose than at present and, in effect, take over the role of the consented hospital autopsy? If so, can the system be made to work efficiently if there is not a single system of oversight to replace the present disparate and fragmented operations? Is the public willing to accept the necessity for autopsy as a means of audit, research and teaching? And what is the public prepared to pay for this through taxation? Improvements to health and other services usually cost money, and the recommendations in this report, which particularly imply more time spent on each case by a pathologist, have resource implications.

Reform of the coronial system is promised. NCEPOD hope that this report will be widely read and make a significant contribution to the debates that will ensue with the passage of legislation through Parliament. It is critical that the broadest possible discussions take place as death affects all families.

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Principal recommendations

Government should consider and agree the fundamental purposes of the coronial autopsy. An ideal opportunity exists to do this during the passage through Parliament of the Bill for reform of the coroner's system as recently announced.

There should be nationally uniform criteria and standards for investigation of reported deaths. This includes the diagnostic level of investigation at autopsy and the definition of what a postmortem examination comprises.

There should be regular (independent) peer review of coronial autopsy reports and processes to maintain consistency of agreed standards and accountability, and all pathologists and coroners - in training and as continuing professional development - should review the autopsy reports and related documents of their peers.

4. Overview and discussion

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