The Coroner’s Autopsy. The Final Say in Establishing Cause of Death?

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The Present Coronial System

The process of determining cause of death through the coronial autopsy has been a cause of concern amongst both coroners and pathologists for a considerable period of time. The Wright report (1936), the Broderick report (1971) and the Luce report (2003) all highlighted the problems before Dame Janet Smith called for rigorous reform to protect the public.

The Luce report stated:

“There is, indeed, a general lack of evidence about the utility and justification for coroner’s autopsies on the scale on which they are practised 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.”

In its response to the Luce report, the Coroners’ Society of England and Wales noted that:

“it hopes fervently that this report will receive the attention and implementation that its predecessor reports.”

Sadly the Luce report did not lead to the hoped for implementation of reform of autopsy practice.

The organisational, funding and governance relationship between pathologists and coroners is complex and involves no less than four government departments (Figure 1).

On 9 May 2007 the judicial functions of the DCA were transferred to the newly formed Department of State, the Ministry of Justice.

When someone dies in England, Wales, Northern Ireland or the offshore islands, there is a requirement that the death is registered with the state and formal documents issued before funeral arrangements take place. In order to register the death there must be a recorded cause. In the majority of cases, a medical practitioner is able to sign a medical certificate indicating, to the best of his/her knowledge and belief, the cause or causes of death. However, a doctor may not know the cause of death, or there may be factors that suggest an unnatural death. Alternatively, a doctor may complete a medical certificate of the cause of death, which the Registrar of Birth and Deaths regards as not natural or appropriate. A death is referred to the coroner when a number of criteria are fulfilled, including:

- evident trauma;
- cause of death unknown;
- a doctor has not seen the deceased with known disease within the 14 days preceding the death;
- the patient died or was certified in an Accident & Emergency department;
- death occurred 14–28 days following surgery (individual coroner dependent);
- death was related to a mishap in hospital;
- industrial disease or acute poisoning.
In these cases, in England, Wales, Northern Ireland and the offshore islands, the death is referred to a coroner who then decides whether or not to investigate the case further. The coroner may decide, in discussion with the reporting doctor, that there is sufficient information to permit a natural cause of death to be recorded and registered. If following discussion between the coroner and the doctor the death is regarded as “natural”, the coroner may issue a certificate (referred to as Pink Form A) that enables the Registrar of Deaths to register the death, without autopsy. If the cause of death is unknown, the coroner may arrange for an autopsy to be performed by a registered medical practitioner (nearly always a pathologist) who will write a report for the coroner that gives a cause of death and if the cause of death is “natural”, the coroner may issue a certificate (referred to as Pink Form B) that allows the death to be registered following the autopsy (but without inquest). A coroner may also decide to hold an inquest into the death at some later date.

The Role of the Coroner

The matters to be ascertained at inquest are set out in the Coroners’ Rules:  
(a) who the deceased was;  
(b) how, when and where the deceased came by his death;  
(c) the particulars for the time being required by the Registration Acts to be registered concerning the death.

Currently, about 55% of deaths in England and Wales are certified directly by doctors and 45% are directly referred to a coroner. If the coroner accepts the case for investigation, he/she provides the cause of death for registration purposes, usually confirming the pathologist’s cause of death as the basis for this. In 2005, 22% (114,600) of the people who died in England and Wales (513,000) were examined after death through a coronial autopsy.

The Coroner’s Autopsy

There has been little improvement in the overall rate of discrepancies between clinical and pathological causes of death since the 1960s. Roulson et al concluded that 50% of autopsies produce findings unsuspected before death and at least a third of all death certificates are likely to be incorrect. However, it is important to note that the purpose of the coronial autopsy, within the confines of the coronial system, is only to provide a cause of death, not necessarily the cause of death. The case study below illustrates this point.
A teenager was found dead at home. The given medical history was of ‘headaches, fainting, epilepsy, atrial fibrillation’. The pathologist had added in the history that the cause of the fits was never discovered. At autopsy the heart was noted to be 244g with pericardial effusion, congested myocardium, normal valves and coronary arteries. The lungs were oedematous. The brain was congested but healthy. The comment was ‘Death consistent with natural causes. No toxicology or organs retained’. No histopathology samples were retained either.

The cause of death was given as:
1a. Acute pulmonary oedema
1b. Chronic atrial fibrillation

The advisors considered this examination and evaluation unacceptable. The underlying diagnosis offered is not one that, unqualified, could occur in an adolescent. A cardiac abnormality is a distinct possibility, which might be inheritable, and deserves proper examination, possibly with the involvement of a specialist cardiac pathologist. Another possibility is sudden unexpected death related to epilepsy which could be considered if all other investigations proved negative.10

The 2002 report of the National Confidential Enquiry into Patient Outcome and Death (NCEPOD) identified imperfect communication between clinicians and pathologists, and between pathologists and coroners, particularly in the transfer, quality and completeness of information concerning events leading up to a death.
Inconsistency in the way individual coroners order autopsies was criticised, particularly considering the demands of the large numbers of deaths being reported to them. The overall number of autopsy examinations ordered as a proportion of deaths referred to coroners is 49%; however this varies nationally over the busier jurisdictions between 28–77%. There was a call for changing the coronial system and a strong plea that autopsies, like all other branches of medicine, should be subject to the formal scrutiny of external audit by interested groups including clinicians. Finally, the problem for coroners in identifying appropriately specialist pathologists for certain cases (particularly paediatric) was noted.

Partly in response to these concerns, the Royal College of Pathologists approached NCEPOD, and in response NCEPOD undertook a study to assess the quality of coronial autopsy reports, and indirectly the quality of autopsies, requested by coroners under the England, Wales, Northern Ireland, Guernsey, Jersey and the Isle of Man coronial systems.

The NCEPOD 2006 study involved peer review of autopsy reports and supporting documentation, by a group of advisors comprising 21 coroners and “autopsy active” pathologists (seven coroners and 14 pathologists). This was purely an audit of reports and not designed to audit the quality of the examinations themselves: any deficiencies that were not apparent from the reports would not be revealed and so the service is almost certainly significantly worse than the results of the Report suggest. Assessment of autopsies was based upon previous NCEPOD assessment forms, criteria set out within the Coroner’s Act 1988 and the Royal College of Pathologists’ Guidelines. An organisational questionnaire completed by mortuary staff was also available for the advisors. The study sample comprised all coronial autopsy cases, excluding known homicides, where the autopsy was performed during a seven day period in early 2005. This was prior to the implementation of important changes to the Coroner’s Rules in June 2005 imposing greater restrictions on the preservation of material following post mortem examination. Coroners’ offices reported a total of 1,877 cases to NCEPOD from 121 coronial jurisdictions, equating to an 88% (121/132) participation rate. Following exclusions (mainly for cases reported outwith the study period), a total of 1,692 cases were available for assessment by the advisors.

The principal findings from this report were:

1) One in four autopsy reports was judged as poor or unacceptable.
2) In one third of mortuaries, the pathologist failed to inspect the body before the technologist commenced opening it and removing organs.
3) In one in seven cases the brain was not examined.
4) In one in 16 cases, it was deemed that histology should have been taken in order to determine the cause of death.
5) In nearly one in five cases, the cause of death as stated appeared questionable.
6) There was poor communication between coroners and pathologists.

This report raised the central question: “What is the coronial autopsy for?”

The advisors proposed a number of purposes:

A) to exclude homicide;
B) to consider and exclude unnatural death;
C) to provide an acceptable (though not necessarily correct) medical cause of death for registration purposes;
D) to provide the correct medical cause of death and accurate data for national statistics;
E) to provide an account of sufficient, accurate detail to address any concerns from the next of kin and be useful to them;
F) to provide detailed information for medical audit and explanation of events following medical interventions;
G) to provide the basis of a publishable case report.
Neither the Coroners’ Act 1988 nor the Coroners’ Rules 1984 are particularly helpful in giving guidance to either pathologists or coroners. However Rule 10(1) of the Coroners’ Rules specifies that “the person making a post-mortem examination shall report to the coroner in the form set out in Schedule 2 or in a form to the like effect”.

Schedule 2 sets out a check list, which includes details of:

1) time of death;
2) age;
3) nourishment;
4) identification marks;
5) body surface including injuries;
6) internal examination of the body systems;
7) disease or condition leading to death;
8) antecedent causes;
9) morbid conditions giving rise to the above;
10) other significant conditions contributing to the death but not related to the disease or condition causing it;
11) morbid conditions present but not contributing to death;
12) any further laboratory examination to be made which might affect the cause of death (sic alter the given cause of death).

The NCEPOD report identified little consistency in the amount of supporting information supplied by coroners to pathologists. The quality of supporting documentation was judged to be unsatisfactory in 13% of cases by the specialist advisors. There are no details contained within the Coroner’s Act or Rules which specify what information or instructions should be given to the pathologist when an autopsy is requested.

The importance of communication is obvious from the following illustrative case study in the NCEPOD report:

“The history presented to the coroner in the case of the death of an elderly person was ‘In 1993 suffered depression after spouse died. 1996 macular degeneration, had TIA (transient ischaemic attack) in 1997 further one in 2001, suffered hypertension in 2001, had skin lesion removed in 2004. At place of death was found a probiotic of which a quantity was missing.’

The autopsy found nothing significant externally, apart from blood oozing from the nose. Internally the heart was normal with coronary stenosis at a maximum of 40% in one artery and there was early bronchopneumonia in the right lung. The abdominal organs were normal and tablets/capsules were not seen in the stomach. The brain was normal and no significant abnormalities were seen in the musculo-skeletal system.

At the end of the autopsy report there was a further statement:

‘I have received further information that the deceased was found with a plastic bag over the head … in the absence of this information at the time of the post mortem I was unable to carry out some investigations which would have been done in the presence of this information … Toxicology was not taken. I was not able to examine the bag. In my view there is no alternative but to submit a cause of death as: 1a Unascertained.’

In those circumstances it is evident that the present arrangements do not serve the purpose of detecting unnatural deaths. Arising from the findings of this report, NCEPOD have recommended that:

“The information provided by coroners’ offices to pathologists should be in a standardised format that includes an agreed minimum clinical and scene of death dataset, including date of birth and occupation of deceased. Such information should be communicated in writing.”
It would seem appropriate that standardisation of both the instructions and documentation provided by coroners and the production of the report by the pathologists should be specified within amended coroners rules, which accompany the proposed new Bill.

**The Draft Coroners Bill**

The government’s draft bill dealing with the coronial system is entitled: Coroner’s Reform – Improving Death Investigation in England and Wales. The draft Bill specifies a threefold aim:

1) to provide a better service for the bereaved and others;
2) to create a national framework and leadership, whilst ensuring the service remains locally grounded;
3) ensuring investigations and inquests are more effective.

Five key reforms are proposed:

1) The bereaved to have clear legal standing, and a coroners’ charter to set out guidelines and standards, so that the bereaved know what to expect.
2) The establishment of a chief coroner accountable through the Lord Chancellor to Parliament.
3) Create a service of full time coroners and give ministers powers to determine the size of coroners’ areas to ensure effective cooperation with other statutory services.
4) Modernise the process for coroners’ investigations and inquests, and give coroners powers to obtain further evidence they need. Remove archaic boundary restrictions which hamper coroners’ work.
5) Give coroners powers to impose reporting restrictions.

Of importance to the role of the coronial autopsy, although not in the Bill because legislation is not required, Lord Falconer LC and Rt Hon H Harman Minister of State at the Department of Constitutional Affairs state in their foreword to the Draft Bill:

"we will also be providing coroners with significant new medical expertise to help inform their decision making. There will be a new chief medical adviser to the coroner service to whom the Chief Coroner can look for advice on strategic medical issues, and each coroner will be funded to buy in medical support, in consultation with the local authority, which is best suited to meet local needs."

The Bill proposes new powers in relation to autopsies. Under the proposals, the coroner can arrange to move bodies to any place for a post-mortem rather than as at present just within his or her area or a neighbouring area. This is aimed at enabling coroners to make better use of specialist pathology skills and specialist equipment where an investigation into a particular death requires it. This would address some of the previous criticisms which relate to the inability of coroners to have access to suitable specialist pathological opinion.

However there is little detail regarding standardisation, and specifying the precise role of the autopsy within the coronial system. Indeed the continuing emphasis on allowing each coroner to commission medical support in consultation with the local authority, best suited to local needs, implies that the present “post code lottery” for autopsies will continue within the Government’s proposed modernised coronial system.

Enactment of a new Coroner’s Act offers a rare opportunity to address centuries of confusion about the purpose of the autopsy and the lack of standardisation in the conduct and reporting of its results. The present proposals fail to address these issues and if enacted in its present format Parliament will have failed to create an environment in which this essential adjunct to the role of the coroner is appropriately harnessed. A glimmer of hope remains, arising from the Government’s response to the consultation process. The Minister of State for Constitutional
Affairs has recognised the need for further consultation with regard to the issues surrounding post mortem examinations and medical support. The Government has recognised the concerns expressed regarding specification as to who is qualified to perform a post-mortem, and the need for clarification on the purpose of the post-mortem examination. We hope that this opportunity to reform the coronial autopsy service is not squandered.

Notes

13. The Coroner’s Autopsy: Do We Deserve Better?
19. The Coroner’s Autopsy: Do We Deserve Better?
20. The Coroner’s Autopsy: Do We Deserve Better?, 40.
21. The Coroner’s Autopsy: Do We Deserve Better?, 42.