



The Royal College of Pathologists

Guidelines on Autopsy Practice **Scenarios for specific types of death**

INTRODUCTION

In September 2002, the College published a set of *Guidelines on Autopsy Practice* to facilitate the improvement of standards of autopsy performance and reporting. The accompanying documents continue this process, and are presented to assist pathologists in daily autopsy practice. They may also enable other interested parties – the public, government bodies and non-governmental organisations – to consult them for advice on autopsy best practice.

Those 2002 *Guidelines* contained, as appendices, a limited set of documents covering a few types of autopsy. The Working Party on the Autopsy was requested to produce a new set of standardised best practice scenarios to cover specific autopsy situations, comprising:

- the most common types of autopsy
- those where audit has shown that standards of performance and reporting were frequently poor.

They are not intended to be formally printed and distributed by the College, but will be periodically reviewed, updated and augmented, providing an expanding resource on the College website. This is intended particularly for practising autopsy pathologists and trainees.

Upon advice from College members and staff, the list of scenarios may be expanded indefinitely, providing an online manual on autopsy practice. In addition to the scenarios being presented now (January 2005), others are in preparation (e.g. on general peri-operative death, peri-cardiac surgery death, the negative autopsy, the decomposed body, the body immersed in water) and will be posted when ready.

We are all aware that change in the regulation and legislation covering many aspects of the autopsy – Coroners Rules, tissue and organ retention – is ongoing, and having a profound effects on autopsy practice in the UK. The scenarios are drafted to indicate what we believe to be best practice both now and in the future. But we are aware that there are many local variations in how Coroners operate and interpret the Coroners Rules and Act governing, for example, the taking of histology. We appreciate that pathologists may find it difficult to always follow best practice recommendations. We hope that presenting these scenarios may facilitate the necessary dialogue that takes place between Coroners and pathologists.

The feedback from the online consultation with College members in 2003 indicated both support for the concept and content of such scenarios, but also concern that they were too detailed and

unrealistic for daily practice. However, they are guidelines, not mandatory regulations, and are intended to cover the majority of case types that fall within the scenario's remit, with indications on how to solve diagnostic problems. The level of investigative and analytical detail for an autopsy can only be judged on a case-by-case basis, and with regard to the expectations of those commissioning the procedure. So for many circumstances the scenarios may appear too detailed, but they should assist in resolving the difficult cases. Underlying everything is the need to satisfactorily answer the issues presented by a death and we believe that the approach through all the scenarios facilitates that.

THE AUTOPSY SCENARIOS (as of January 2005)

The following scenarios have been drafted by members of the Working Party, other pathologists and specialist committees approached for assistance. All the scenarios are downloadable from the 'Histopathology' section on www.rcpath.org/Publications.

Scenario 1: Sudden death with likely cardiac pathology

Scenario 2: Autopsy for sickle cell disease and sickle trait

Scenario 3: Suspected illicit drugs and dangerous substances

Scenario 4: Autopsy for suspected acute anaphylaxis (includes anaphylactic shock and anaphylactic asthma)

Scenario 5: Maternal death

Scenario 6: Deaths associated with epilepsy

Scenario 7: Industrial lung/occupational-related lung deaths including asbestos

Scenario 8: Sudden unexpected deaths in infancy (SUDI)

STANDARD FORMAT OF SCENARIOS

Each scenario is constructed along a standard format of 12 sections, which are summarised below.

Behind the prescriptive and practical information, it must be remembered that there are other overriding purposes of an autopsy. Within the limitations of consent and Coronial practice in each case, these aspects may be pursued. They include:

- training of pathology senior house officers and specialist registrars
- education of medical students and other interested paramedical personnel
- continuing education for senior pathologists
- information for audit
- material for research
- accurate data on death for national statistics.

1. The role of the autopsy

Why are we doing this particular autopsy, what information should be obtained from it and who wants to know the information? The answer is usually obvious, but it raises the issue of whether all commanded autopsies are always needed.

2. Pathology encountered at the autopsy

This includes a reasonable list of the common and important but less common pathologies that may be encountered. It is intended as an *aide memoire*.

3. Specific health and safety aspects

There is much variation on how mortuaries, pathologists and anatomical pathology technologists (APTs) approach known or suspected ‘high-risk’ cadavers, mainly those with Hazard Group 3 infections. This section reminds pathologists of the likely infections. How they may be managed in detail is covered in the 2002 *Guidelines on Autopsy Practice*.

The risk to pathologists and APTs from chemical hazards in or on a body is an uncertain area, receiving belated recognition and attention. This is not yet addressed in these documents. There are ongoing consultations with the Division of Chemical Hazards and Poisons at the Health Protection Agency over risks, recognition and management. Appropriate additions and amendments will be incorporated into a revision of the 2002 *Guidelines* when there is agreement over best practice.

4. Clinical information relevant to the autopsy

What are the core elements of the medical history, whether obtained via a Coroner’s officer or directly from medical notes or from clinical personnel and relatives?

5. The autopsy procedure

This is a summary of the overall approach to the evisceration and dissection.

6. Specific significant organ systems

This highlights which organ systems are particularly important in a specific case. For the ‘Sudden death with likely cardiac pathology’ scenario, we have included a standard recommended approach for examining and opening the heart.

7. Organ retention

If organ retention for fixation and optimal examination is relevant to a case, it is important that it be addressed and done. Also, for example in cases of unexplained cardiac death, it may be important to refer an organ to another expert. Organ retention without authorisation and consent is a thing of the past in pathology. Pathologists are all aware of the processes of open discussion with relatives, in the case of consented autopsies, when they believe that a certain significant organ should be retained. In Coronial cases, pathologists must be reasonable but firm and insist when retention of one or more whole organs, for a short or longer period, is necessary to derive the cause of death.

8. Recommended blocks for histological examination – best practice

Since most autopsies in the UK are commanded by Coroners or Procurators Fiscal, who interpret Rules with many variations, it is difficult to be prescriptive in detail. What is presented is regarded as recommended best practice, and may be used in dialogue between Coroners and pathologists.

9. Other samples required

This includes samples for toxicology, cultures for infectious agents, serum for serology and blood for haematological and biochemical studies. It is evident that the extent to which toxicological studies are performed on cadavers where they might be relevant varies widely, and appropriate recommendations are made in the 2002 *Guidelines*.

Since patients may not die immediately of drug-related toxicity and may survive in hospital for a period of time, it is important that the pathologist initiates the identification and sequestration of (for example, blood or urine) samples taken in life. The post-mortem samples may be unhelpful because the suspected drug has been completely metabolised by

then. The Coroners' officers are helpful in the process of collecting such samples for later analysis.

10. The clinicopathological summary

This is the one section, apart from the listing of the cause of death, which is read by everyone and is most important. Essentially, it must satisfy the question: has this autopsy answered the questions posed by this death? It must include the relevant positive and negative information, and indicate if there are any unanswered aspects.

11. Specimen cause of death opinions/statements

Reviewing autopsy reports and included statements of the medical causes of death (for The National Confidential Enquiry into Patient Outcome and Death [NCEPOD] and medicolegal claim practice, for example) shows wide variation in the facility with which pathologists can condense morbid anatomical information into a cogent sequence for the Office for National Statistics (ONS) certificate. Trainees have particular problems here, through lack of experience. We have suggested formulations of some of the more common causes of death within each scenario.

There will be arguments over the acceptability of some of them by Coroners, for example with the use of terms such as 'overdose' and 'road traffic accident'. This indicates the wide variation in practice within Coroners' offices.

For peri-operative deaths, it is now required that, if the disease operated upon or the actual operative procedure contributed to the death, it must be mentioned in Part 1 or 2 of the medical certificate of cause of death, with an indication of the type of operation and the date it took place.

12. References

As much of the autopsy scenario as possible should be derived from evidence-based practice, preferably published in peer-reviewed media. This is more difficult for autopsy practice than much of medical and surgical practice, since the much autopsy practice is derived from custom with relatively little retrospective or prospective analysis.

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