3. Results of study

The autopsy report - process and format

In assessing the quality of the content of autopsy reports, NCEPOD were in a unique position to be able to reflect upon the production and 'look' of the autopsy report. The following were therefore examined:

- the time taken for the autopsy reports to be issued to the coroner;
- the autopsy reports' format;
- whether or not the overall report actually complied with the statutory requirements outlined by the Coroners Rules.

How long did it take to issue a report?

Performing an autopsy takes a certain time, depending on the case. The cause of death, if it is evident from the gross examination, can be rapidly transmitted to the coroner (by phone and/or fax), and the written report which is required under Schedule 2 of the Coroners Rules can follow later. If the autopsy report is delayed, it can significantly slow down the medicolegal process, and cause distress to families who would like to know the diagnosis and see a fuller account than just the bare cause of death.

The time (in days) that lapsed between the date the autopsy was performed and the date that the autopsy report was actually issued (signed or authorised by the pathologist) was calculated. Table 21 shows, importantly, the median number of days that lapsed between the date of autopsy and the date the report was issued in cases that did and did not take histology and/or 'other samples'.

Table 21: Time lapse between autopsy and issue of the autopsy report (days)

	All cases * (n=1081)	**All cases where histology or other samples not taken (n=781)**	**All cases where histology and/or other samples taken (n=300)**
Median (range)	4 (0-255)	2 (0-144)	15 (0-255)

** Not all autopsy reports were dated and therefore these calculations could only be performed on the 1081 cases where dates were available.*

There is often anecdotal criticism of the time taken to generate and send out autopsy reports. However, the data indicated in the table 21 are satisfactory. The turnaround time for reports that did not require further investigations was not different from that of surgical pathology reports on

large specimens. Autopsy histopathology takes time to fix and process, and to think about in a complex case. Toxicology analysis is dependent on factors within the relevant units and is usually outside the power of the pathologist to accelerate. Interestingly, the overall median time of 15 days was quicker than that from laboratories used by several of the pathology advisors. The RCPath 2002 Guidelines recommended that provisional autopsy reports where further analysis was being done, or final reports in cases without analysis, should be issued within five working days of the autopsy. If further work is being done, then the final report should follow within one week of receipt of the outstanding investigation results.

Since then it has become apparent that provisional reports are not well received in coroners' offices, as there may be confusion as to which is the appropriate version to file and act upon when the final report comes in. If, as is strictly the case, tissue analysis is done because the cause of death is not known from the gross autopsy examination and this necessitates an inquest, then the timing of the final report with a median time of 15 days may be satisfactory; it takes time to organise an inquest. One practice familiar to the advisors in cases where histology or other sample analysis is required to form a cause of death, but when that cause of death is almost certainly going to be 'natural', is to process and examine the tissues rapidly (within a few days) whilst assuming the autopsy process to be continuing for that time. When the expected natural cause of death is declared, an inquest is not required and the coroner can write the appropriate certificate.

Finally, there are naturally family concerns over the time taken to analyse a case and give the opinion on the cause of death, as funeral arrangements have to be made. This study did not investigate this aspect further.

Autopsy report format

From this study it was observed that there was no uniform format for coronial autopsy reports, and wide variation was seen in both layout and length in the study cases. NCEPOD has previously noted that the use of a preprinted short form with blank spaces - that was more in use in the era of handwritten reports and typewriters than in the current era of computers and word-processing - was very unsatisfactory for autopsy reports as it limited the space for descriptions. Such a form was not common in the present study, most of the reports appearing to have come from stored computerised formats.

The Autopsy Committee of the College of American Pathologists has noted in their Practice Guidelines for Autopsy Pathology (1999) that:

> "The autopsy findings should be recorded in a format that will make them useful to the parties who read autopsy reports or to those who abstract information from autopsy reports. This includes pathologists, clinicians, family members, lawyers, risk management officers, researchers, epidemiologists, statisticians and outcome analysts." [33]

There was one notable form that appeared in the study series which comprised of a set of tick boxes for each part of the autopsy examination, with the default set at 'N' for 'normal', and abnormalities indicated by inserting numbers in the boxes that correlated with numbered footnotes immediately below. The footnotes were synoptic. All the advisors found this format difficult to read and unsatisfactory. One advisor commented "I am certain that the pathologist did not examine the 'air sinuses' and 'middle ear' [ticked as 'N']; this is very poor for the family who may read the report". Another stated "I do not think it is satisfactory for pathologists to tick boxes like a car mechanic".

Complying with statutory requirements

As previously mentioned, Rule 10 of the Coroners Rules states 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 lists the information that should be contained within an autopsy report (Appendix).

As part of this study, the number of reports that fulfilled these requirements were sought to be identified. Many aspects of the Schedules (for England, Wales and Northern Ireland) are rarely included in autopsy reports today and accordingly 98% (1,660/1,691) of autopsy reports did not meet these statutory requirements (specified by the Rules of England and Wales). Most commonly, reports failed to meet the requirements outlined in Schedule 2 because there was no record of the time the autopsy was performed, or whether or not a pacemaker was present in the body.

Twenty three percent of the autopsy reports that did not meet the statutory requirements outlined by Schedule 2 were actually deemed overall as 'excellent' or 'good'. This finding might suggest that the requirements outlined by Schedule 2 are not all necessary for a good quality autopsy report. Nevertheless, looking at the reports that did meet the requirements, proportionately more 14% (7/49) versus 4% (60/1642) were rated as 'excellent' (Table 22).

Table 22: Overall quality of the autopsy reports in cases that did or did not meet the statutory requirements outlined by the Coroners Rules 1984

	Excellent	Good	Satisfactory	Poor	Unacceptable
Yes	7	9	21	11	1
No	60	306	852	362	62
Total	**67**	**315**	**873**	**373**	**63**

The Schedule 2 was drawn up a long time ago and, as these results show, needs revisiting in the light of changing practice. As previously discussed, NCEPOD would like to see two particular additions to the list of items required in an autopsy report: the history of the case, and a clinicopathological correlation.