

3. Results of study

Children and the elderly

The median age of all the patients whose autopsies were reviewed was 74 years. The advisors were interested to see whether the autopsy reports were of the same quality for both children and the elderly.

Children

There were 23 children (those aged 0-16 years) in the study (1.4% of the total). The causes of death included road traffic collisions and other accidents in the community, and infectious complications of prematurity. None of this sample was a perioperative death. Table 18 shows who performed the autopsy.

Table 18: Person performing the autopsy on children		
	n=	%
Consultant histopathologist	7	31
Consultant paediatric pathologist	5	22
Forensic pathologist	4	17
Consultant neuropathologist	1	4
Not stated	6	26
TOTAL	23	100

Five of these were cases of sudden infant death syndrome (SIDS) and all were very well evaluated. Although the number is small this would suggest an endorsement of the change that has taken place in paediatric/perinatal autopsy practice over the last decade. The joint Royal College of Obstetricians and Gynaecologists and RCPPath document³² and the more recent Kennedy report¹⁴ are part of the process of improving the quality of the extremely important autopsy examinations of deaths in the perinatal period and infancy. There is increasing specialisation in paediatric practice and fewer general pathologists undertaking the work.

The overall quality of the autopsy reports in children compared to adults is shown in Table 19. Only one report was considered by the advisors to have been 'Unacceptable'. This concerned a teenager with a cardiac problem (described previously in case study 17).

Table 19: Overall quality of the autopsy reports in adult and child cases

	Excellent	Good	Satisfactory	Poor	Unacceptable
Adults (17 to 94)	63	307	850	364	60
Children (≤ 16)	4	5	12	1	1
TOTAL	67	312	862	365	61

Elderly people

The autopsy examination of the elderly is a significant component of coronial autopsy work. 59% (1,002/1,691) of the cases in the study were patients aged 70 years or more, up to 101 years of age. A large proportion of the patients had died in nursing homes. Nursing home deaths are often referred to the coroner because the attending general practitioner for the home is unable to provide a cause of death. This may be because they have not seen the patient for more than two weeks (a requirement for completing a death certificate and 28 days in Northern Ireland), they may not have been able to view the body after death or because the death was not expected and was not understood. Another reason may be because the deceased experienced a fall in the home which led to fracture of a neck of femur, then required admission to hospital.

The advisors' overall assessment of the autopsy reports in the 118 reports of those aged 90 years and more were reviewed in more detail for repeated comments, and the following issues emerged:

- the reports were brief and lacked any useful detail;
- dementia, when present, was not considered significant in the cause of death statement;
- fractures - with or without subsequent operation - were not evaluated and did not form part of the cause of death statement;
- the brain was not examined;
- ischaemic bowel was not evaluated when suspected clinically, or was not included as a cause of death;
- complaints against a hospital or nursing home being indicated as likely in the given history, yet the reports were too brief and without correlations so that they would not necessarily contribute helpful evidence;
- specific requests from the coroner to do certain investigations not apparently being done.

In contrast, case study 23 indicates a well undertaken and reported autopsy in a person aged over 90 years.

Case study 23

An elderly known hypertensive, was admitted with a fracture of the femur. An aortic valve

systolic murmur was noted. Surgery for the fracture took place four days later and initially the patient recovered but two days later acquired a chest infection and died the next day.

The detailed report included precise descriptions of the abnormal heart valves, muscle hypertrophy and old ischaemic scarring and of the unruptured aortic aneurysm. A hypoplastic kidney was noted, and in the musculo-skeletal system, the fracture and operation site had been explored. A scalp laceration and small subdural haematoma beneath (without skull fracture) were described.

There was a considered clinicopathological correlation discussing the cardiac clinical pathology and the scalp injury. The cause of death was given as:

- 1a. Congestive cardiac failure*
- 1b. Hypertensive heart disease*
- 2. Aortic valve stenosis and fractured right neck of femur*

The autopsy was performed by a SpR who probably also prepared the report. No histopathology was requested and none really needed. The advisor graded the report highly.

All 24 cases aged 95 years and over were studied in more detail; 19 were female and five male. Twenty-one (88%) died in a nursing home. All the deaths were considered to be natural, but the quality of the examinations was less good than those in the <95 year old population (Table 20). In fact, none of the reports from these elderly cases was assessed as being excellent, and proportionately more were unacceptable when compared to all other adult cases (17-94 years).

Particular concerns related to dementia and fractures. In the provided histories, five patients had dementia, but in none of the reports was this mentioned in the cause of death and in the advisors' opinion it was unlikely that dementia was not relevant to the death. Three patients died following a fall with fracture, but this was mentioned in the cause of death in only one case, and that was under part 2 of the cause of death statement; again, this appears unlikely. The significance of 'part 2' in the cause of death is that if a fall or other trauma is indicated in part 1, it usually follows that there will be an inquest. Placing it in part 2 removes that need, and so saves court time, administration time and the cost of an inquest.

Another concern for coroners and pathologists is the requirement for examining such elderly patients at autopsy. The elderly population is increasing demographically, but there is an impression that an increasing proportion of deaths are being referred to a coroner as unknown causes of death, and that this may be related to the case of Dr Harold Shipman²¹. There appears to be a greater unwillingness to provide medical certificates of causes of death in the elderly just in case there is a possibility of a third party involvement in the death. This is reflected in the proportion of all deaths reported to a coroner.

The scenarios of death in the over 95 year old cases were examined for predictability of the autopsy diagnosis when compared with the clinical information provided in the documentation and history. In half of the 24 cases, the cause of death could broadly be predicted from that information and it raises the question of suitability of referral to the coroner in these cases and the real necessity for autopsy. However, in many cases, in the absence of clinical past history, an autopsy was required. In conclusion, the advisors had concerns over the quality of autopsy examinations in the very elderly and had the impression that they were done less carefully than those on younger patients; this was not acceptable.

Table 20: Overall quality of the autopsy reports in adult cases and those aged 95 years and older

	Excellent	Good	Satisfactory	Poor	Unacceptable
Adult (17 to 94)	63	307	850	364	60
Elderly (≥ 95)	0	3	11	8	2
TOTAL	63	310	861	372	62