

3. Results of study

External examination

Before the body for autopsy is opened it is usually inspected externally and various features recorded. The first and most important item is the identity of the patient, and in only 28% (474/1,691) of the reports was the mode of identification specifically noted. Usually this is done by wrist bands on the deceased giving name, date of birth and date of death; and if the death occurred in hospital, the hospital number. (In previous times, visual identification by the coroner's officer was a usual mode of identification; this is enshrined in Schedule 2 of the Coroners Rules). It is ultimately the pathologist's responsibility to ensure that he/she is examining the correct body.

For each of the 1,691 cases, the external examination as presented in the report was assessed for overall quality, and the presence or absence of the deceased's height, weight and nourishment was noted.

Height, weight and nourishment

Overall 68% (1,148/1,691) of cases recorded the deceased's height, 55% (933/1,691) recorded the deceased's weight and 66% (1,110/1,691) made a note of the deceased's nourishment status. A statement on 'nourishment' (but not height and weight) is one of the requirements listed in Schedule 2 for an autopsy report. Table 9 shows the differing combinations of height, weight and nourishment.

	<i>n</i> =	%
All	561	33
Height & weight	316	19
Height & nourishment	201	12
Weight & nourishment	32	2
Height only	70	4
Weight only	24	1
Nourishment only	316	19
None	171	10
TOTAL	1691	100

Where available, these data were correlated with the organisational questionnaire, it was found that in the 93% (419/452) of cases where the autopsy report did not include the height of the deceased, the pathologist could have actually done so as the mortuary reported that all bodies are routinely measured. Similarly, in 50% (292/589) of the cases where the autopsy report did not include the weight of the deceased this was possible as the mortuary reported that all bodies are routinely weighed. From the organisational questionnaire 97% (188/193) of the mortuaries were reported to measure all bodies for height, and 73% (140/193) of the mortuaries were reported to have scales to weigh bodies).

Arguably, measuring body dimensions is more important than weighing most or all of the organs within. Height and weight can provide the body mass index (BMI: weight in kilograms divided by the square of the height in metres). This is a significant indicator of health status at either extreme. Obesity is a risk factor for many diseases (liver, lung, thromboembolic, musculo-skeletal etc) and appreciation of the BMI can focus attention on the real pattern of disease progression in an individual. The size of the heart is correlated with body size, and the BMI enables a better appreciation of the significance of what might appear to be a rather large or small heart⁸. BMI is also a measure of malnutrition. Comparison of BMI over time (e.g. from admission to death in a hospital case) fills in more detail over the progress of a debilitating disease. In an age of increasing concern over the care of the elderly, establishing the BMI in the old and potentially frail can provide evidence of how well they have been caring for themselves or have been cared for. BMI is more objective than a subjective comment about the deceased's nourishment (as required under Schedule 2 of the Coroners Rules 1984), and it was considered that this may be a more useful method of recording an individual's health status.

In the 2000 NCEPOD report⁹, a key point was that height and weight should always be recorded for consideration in assessing the relative size of internal organs. Then, the proportion of reports that stated weight was 45%; in the present study this had risen to 54% (910/1,691), although again one must remind the reader that the samples are not exactly the same in that the previous NCEPOD report related only to perioperative deaths.

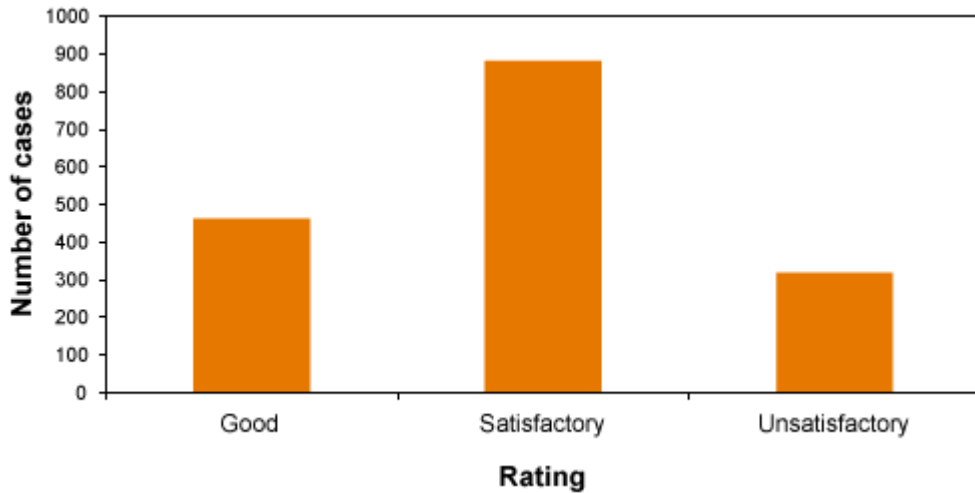
Recommendation

The height and weight should both be measured, the BMI calculated, and the data given in the report.

External appearance and identification features

In 98% of cases (1,658/1,691) a description of external appearances and some identification features was recorded. Of such cases, the advisors made the following quality assessments (Figure 7).

Figure 7: Quality of the description of the external appearances and identification features



The advisors commonly noted the following reasons for grading the external description as unsatisfactory:

- No mention of injury or trauma (or lack thereof);
- No mention of needle marks etc. in known intravenous drug users;
- Poor description of identification features;
- Inadequate or no description of surgery in cases that had recently undergone an operative procedure;
- Inadequate description of decomposed cases;
- Overall, poor, brief and no listing of important negatives in the context of the case.

The first point above accounted for approximately 70% of the cases marked as unsatisfactory. The advisors considered that it was very important, especially for deaths in the community, that all marks of injury and trauma should be accurately described, or in cases where no marks of injury or trauma are identified, that there is a statement to that effect. In the study period, nearly 80% of all the deaths occurred in the community, including many where the person was found dead without any witness observation. Following the remit of the coroner according to the Act, a major purpose of the autopsy is to investigate possible unnatural death, including traumatic. Since traumatic deaths usually produce external evidence to the fact, pathologists examining these deaths in particular should document the presence or absence of injuries, to assure the coroner and the family and the public that, at this level at least, there is, or is not, evidence of potential injury or foul play. A similar argument will be adduced when the issue is whether or not to open the skull and examine the brain in all deaths that come to autopsy (which is discussed in the section entitled 'Internal examination').

Section 8.7.5 of the RCPATH guidelines state that, in best practice, the external description should include:

"Measurements of significant surface features, scars, operations sites, bruises etc. with a clear description of the site...The presence or absence of injuries to the eyes, genitalia and anus should be recorded".

In light of the results of this study, and the best practice guidelines set out by RCPATH, the following recommendation is made.

Recommendation

In all deaths, the report must clearly document external injuries or the absence of such injuries.