CLINICAL AUDIT

A good death certificate: improved performance by simple educational measures

Christian P Selinger, Robert A Ellis, Mary G Harrington

Postgrad Med J 2007;**83**:285–286. doi: 10.1136/pgmj.2006.054833

See end of article for authors' affiliations

Correspondence to: Christian P Selinger, 55 Miry Lane, Westhoughton, BL5 2HW, UK; christian.selinger@web.de

Received 30 October 2006
Accepted 23 January 2007

Background and aims: The initial aim of this audit was to determine whether information on death certificates is correct and all legal requirements are met. As shortcomings were found, educational measures were undertaken and the effect of those was measured by a re-audit.
Method: All death certificates issued during a 4-month period within the elderly care department of a district general hospital were retrospectively audited. A re-audit was performed later the same year over a 3-month period.
Results: 19 (13.6%) of 140 certificates issued during the initial 4-month period could not be shown to meet the statutory criteria, as no evidence was found that these patients were attended by the issuing medical officer. Minor errors and omissions were found in 58.6% of certificates. Following education about these problems, there was a significant improvement in death certification. Only 2 (2.4%) of 85 certificates issued in the re-audit period did not meet the statutory criteria ($p = 0.01$) and minor errors and omissions occurred in 20%.
Conclusion: The incidence of unsatisfactory death certificates within a hospital setting is high. Increased education and better documentation leads to improvements in accuracy and legitimacy.

Accuracy in certifying the cause of death is desirable at many levels—for the Office of Population and Census Studies to provide reliable information to health planners, for families in understanding their inherited risks, and for individual doctors in preparing their performance review data. As the postmortem rate diminished, this form of feedback on accuracy of cause of death is now rare for hospital medical teams.

Undergraduates in the UK are taught how to fill in a death certificate. Overseas graduates working in the NHS may or may not have formal instruction. We are unaware of any formal feedback to any grade of doctor on the accuracy of the ascertainable data (as distinct from the cause of death 1a, 1b, 1c and 2), or adherence to the legal requirements of being involved in the patient's care.

Our audit aimed to determine the incidence of inaccurately completed death certificates and adherence to the requirements for knowledge of the patient within the elderly care department of a district general hospital. The data were presented to a departmental seminar, and then re-audited to see if this form of education and feedback improved performance.

METHOD

An initial retrospective audit was carried out looking at every death certificate issued during a 4-month period (1 February 2004 to 31 May 2004) within the Department of Medicine for the Elderly at the Airedale General Hospital. These were scrutinised for accuracy, completeness and adherence to the requirements for involvement in care, in conjunction with the patient's case notes.

The audit data were presented at a departmental seminar attended by senior house officers (SHOs), staff grades, specialist registrars and consultants. Those unable to attend were sent paper copies of the presentation.

Education was in three forms: (1) simply by the presentation of the findings in an anonymised form during a clinical governance meeting; (2) each doctor was given individualised performance data; (3) the topic was highlighted during the induction of new doctors.

A re-audit was carried out three months later (1 September 2004 to 30 November 2004), when new SHOs but the same middle grade and consultant staff were in post.

RESULTS

A total of 158 deaths occurred in the initial audit period, and 143 sets of case notes were traceable. Three of these 143 were subsequently excluded as the coroner had issued the death certificate.

Errors in the ascertainable data included incorrect age (5%), consultant name not given (48.6%) and inaccurate information regarding the person confirming death as indicated by letters a, b or c (24.6%). At least one mistake or omission was found in 58.6% of certificates.

In 19 (13.6%) certificates, there was no written evidence that the issuing medical officer fulfilled the requirements for involvement in care. Further analysis of these 19 certificates revealed that 10 were issued by registrar grade doctors and nine were issued by SHOs. The average length of stay of these 19 patients was shorter than for the overall cohort (5 vs 10 days). A high proportion of these certificates were issued by a small number of individuals.

During the re-audit period 101 deaths occurred with 88 traceable case notes, three again being excluded.

Ascertainable data errors included patient's name being misspelled (1%), consultant not being mentioned (18%) and no "patient last seen alive" date given (3.6%). The certificates contained at least one mistake or omission in 20% of cases.

Only two (2.4%) certificates were completed by doctors who did not meet the requirements of being involved in the patient's care. This improvement (from 13.6% to 2.4%) is significant (Yates p value = 0.01, χ^2 test).

There were no errors in the 49 certificates issued by consultants during both cycles.

The rate of legally correctly completed certificates improved from 54 of 63 (85.7%) to 42 of 43 (97.6%) for SHOs and from 30 of 40 (75%) to 28 of 29 (96.5%) for middle grade doctors.

DISCUSSION

We have shown that in the hospital setting there are an avoidable number of errors occurring in the ascertainable data parts of death

Box 1: Requirements for death certification

Legal requirements[1–3]

- The issuing doctor must have attended the patient during his/her last illness and must have seen the patient within 14 days of or after death
- The issuing doctor must be satisfied that death has occurred due to a natural cause
- The issuing doctor must be reasonably sure of the cause of death
- No referral to the coroner is indicated

certificates. More worryingly, a considerable number did not appear to meet legal requirements for knowledge of the patient.

Possible explanations are:

- *Lack of awareness of the legal requirements*—The issuing officer must know the legal requirements to be able to fulfil them (boxes 1 and 2). We have found that an officer issuing one illegal certificate is more likely to issue another one.
- *Poor documentation*—The adage ''What has not been documented in the notes has not happened'' has to be applied. If a doctor's name does not appear in the notes, then they cannot be assumed to have seen the patient. This was a problem for middle grade doctors on consultant ward rounds who rely on junior doctors documenting their presence.
- *Length of stay and the shift system*—A shorter hospital stay made it more likely that a problematic certificate was issued. In a shift system patients encounter an ever changing group of doctors during their first 48 h of admission. Pressure to certify may be applied to the next shift if the doctors who have gone off duty will not be back for several days.

Simple educational steps have been shown to improve the accuracy of ascertainable data and compliance with legal requirements significantly.

The changeover of SHOs meant that the second cohort were subject only to the education given during the induction course.

Box 2: How to ensure legal requirements are met

- Document the presence of all doctors on ward rounds
- Check for evidence of your attendance in the case notes before issuing a death certificate
- Refuse to issue if you have not attended the patient
- Educate your colleagues

We cannot be certain that this was the only factor responsible for the improvement in performance at this grade, particularly as they were then supervised by middle grades whose own performance was improving.

The middle grades were subject only to the presentation of data and feedback on their own performance. The fall of 21.5% in unsatisfactory certificates issued by this subgroup can be attributed to these two educational measures.

Consultant performance was unaffected by data presentation and feedback but was already at a high level.

CONCLUSION

Avoidable mistakes occur in the majority of death certificates issued by hospitals. We found that 13.6% of certificates did not meet legal criteria. Simple educational measures have reduced the number of certificates not meeting legal criteria as well as the number of mistakes and omissions.

Authors' affiliations

Christian P Selinger, Robert A Ellis, Mary G Harrington, Department of Medicine for the Elderly, Airedale General Hospital, Keighley, UK

Competing interest statement: No competing interests were declared

REFERENCES

1 **Anon**. Statutory Instrument 1987 No. 2088: The Registration of Births and Deaths Regulations, 1987.
2 **Morritt AN**, Hall J. Tips on completing death certificates. *BMJ careers* 2004;**29**:217.
3 **Dosani S**. Dead cert: a guide to death certificates. *studentBMJ* 2002;**10**:45–88.