RETURN OF FATAL CASE DOCUMENTS

Dear Editor,

This is with reference to the article "Developing an operational decision rule for identifying the fatal case documents at risk of being returned through mathematical modeling" by Lt Col UB Misra et al, MJAFI 1998;54:47-8.

Medical audit is the professed purpose of analysis of fatal case documents. Remarks of higher headquarters are expected to unveil professional deficiencies/failures with the intent to learn from the mistakes and improve patient care. However, in practice, the fatal case documents are often returned from higher headquarters with remarks and observations on trivial clerical mistakes or oversights. These observations are inconsequential for diagnosis or patient management. The fatal case documents returned with remarks questioning or criticizing the diagnosis or management modalities are few, as most of these are amended at lower levels.

The case sheet and fatal case document writing are the chore and

responsibilities of the doctors attending the patient, not of the patient himself. Return of a document from higher headquarter does not depend on the factors like patient's age, status (serving/ex serviceman, son/daughter/father/mother) and the time lag between death and submission of documents, as suggested by the authors.

In our experience and opinion, the probability of return of the fatal case documents depends on the case sheet writing ability/inability and wisdom of the doctors. The diagnostic dilemma and management challenge of the case may compound it. Devising mathematical models based on totally irrelevant criteria is perhaps shopping for scapegoats rather than culprits, which in this case are medical clerks.

Lt Col SHISHIR GOKHALE^{*}, Lt Col BS RATHORE[†].

^{*} Classified Specialist (Path & Micro), [†] Classified specialist (Derm, Leprosy & Ven), Military Hospital, Bereilly Cantt (UP) 243001.

AUTHOR'S REPLY

Medical audit is not merely the professed purpose of analysis of fatal case documents, rather, it is the evaluation of medical care through retrospect analysis of medical records. This article was not at all concerned with management modalities/diagnosis of patients. It is not understood as to why this issue is raised.

I agree with the fact that case sheets and fatal case document writing are the responsibility of the doctors. However, return of documents from higher head quarters may have a bearing with the age/status/time lag (between death and dispatch of documents). For e.g. a doctor may be more careful/prompt while writing the documents of a serving soldier as compared when the patient is an exservicemen/dependent.

The present study was based on Operations Research which is a distinctive approach to develop scientific model of a system. The most useful techniques in Operations Research specially in health sector, include statistical modelling methods known as correlation and regression.

The purpose of mathematical model is to help the administration in decision making [1] i.e., to provide some guidelines for a problem. In present situation the problem was to predict which documents had a high probability of being returned so that a thorough check may be done before dispatching the documents. it would be of great utility in large hospitals where load of fatal case documents is substantial and it may not be possible for hospital administrator to do a detailed check of every fatal case document. The aim of writing this article was not to shop around for scapegoats instead of culprits but to demonstrate that these techniques can be used in health sector for decision making. Similar models can be used to handle the problems of inventory control in a hospital, queuing problem of the patients, allocation of resources and so on [2].

In this study the real hard data was analysed by multiple logistic regression analysis which is used to predict dependent variable (out come i.e., whether fatal case documents will be returned or not) on the basis of predictor or independent variable (i.e., age, status and

time lag). The independent variables can be anything related with the system concerned.[1,3]. Initially, during the study other variables for e.g., area of treatment, diagnosis, sex of the patient etc., were included and univariate analysis was carried out. It was found that these variables (diagnosis, area of treatment and sex of the individual) were not significant on statistical analysis (T test), hence, were excluded from the study. Therefore, the selection criteria for the predictor variables was scientific and not irrelevant.

This study was based on prevalidated statistical procedures as mentioned above. The sensitivity and the specificity was worked out by using Receiver Operating Characteristics Curve Analysis and was found to be acceptable (53% and 75%). The goodness of fit of the model was tested by Hosmer-Lemeshow test and it was found that the model was describing the data quite well. A study which was based on so many scientific principles, has been commented upon as, "devising mathematical models based on totally irrelevant criteria", shows a very poor assimilation of the entire concept.

However, I am extremely grateful to both the readers for having read the article. The time has come when we should keep abreast with the recent advances in disciplines other than our own rather than being sceptical even if there is no scope. It will not be out of place to mention here, that the original article was reduced drastically and therefore the comprehension has become difficult.

REFERENCES

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Lt Col UB MISHRA

Project Officer, HQ, North Comd (Med), C/o 56 QPO