

Shaila R Khubchandani for histopathological diagnosis, and Dr Rajkumar Dheer for assistance in management of the patient.

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Medical Errors: Need Further Evaluation

We read the article by Parihar and Passi(1) with interest. It was a very good attempt to study an important aspect of clinical practice. However, there are some problems with the article. *First*, the authors report a medical error rate of 35.5%, which is very high. The authors have this figure by dividing the number of medical errors by total number of patients under evaluation. However, it would have been better, if authors used total number of prescriptions as the denominator to report the rate of medical errors. Further, it is possible that in many cases multiple errors would have occurred in a single patient. Hence, the figure of 35.5% appears to be an erroneous conclusion. *Second*, on the same issue, if we take to understand that total numbers of prescriptions in the intensive care units are more compared to other service areas, the figure of number of errors would come down significantly. The authors also report the percentage of errors between 8 am to 8 pm and from 8 pm to 8 am. Again these figures can also be significantly be affected by total number of prescription under evaluation, rather than the time frame alone. We know that in our practice, in most cases the clinical rounds are mostly held during the day time and

possibly more number of prescriptions are written during the day time. *Third*, the authors have not mentioned anything about the blinding of clinicians and other staff who were under scanner. Because it is quite possible that if the clinicians and staff were aware about the study, then the reported rates would be less than the actual rates in clinical practice, because of being conscious about avoiding mistakes. *Fourth*, the alarming aspect of the study was the fact that more number of errors were committed by Senior residents than Junior Residents. If this fact is true (after taking total number of prescriptions as denominator for the each group), than it is very important to look at the training aspect. *Fifth*, the authors have not mentioned about the time of assessment, because it would give us important lead as to whether the erroneous prescriptions were intercepted or not. *Sixth*, it has been frequently shown in Western studies(2) that the numbers of errors correlate with level of stress and psychiatric morbidity in the residents. The study could have been strengthened by including such measures.

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Reply

All your points are valid and relevant. However we were working under limitations. The problem of medical errors is so huge, so ignored and so difficult to assess, we strongly felt that any attempt to define it however infantile is better than no attempt at all. We agree that the best way to accurately quantify errors is to study each prescription and use it as a denominator as you have mentioned, but practically

this is extremely difficult. Secondly, the clinicians and staff were not blinded. This is a limitation of the study, but only serves to highlight that the problem is probably bigger than it appears.

The reason why more errors were by senior residents than junior residents were because in our hospital, most orders are written by the senior residents than junior resident.

Regarding the point about how many errors were intercepted, the data is as follows: 105 (22.97%) errors were detected immediately after being written, 63 (13.78%) were detected within 30min of occurrence, 194 (42.45%) were detected between 30min to 24hrs and 95 (20.78%) were detected after 24hrs of occurrence. Out of the 457 errors made on paper (planned), 341 (74.61%) were actually executed. In 375 (82.05%) cases no clinically significant outcome was noted.

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