

Eye of horus – Erratum revealed a prescription survey**M. J. Jijin^{1*}, H. P. Jaishankar², R. Krupashankar¹, S. N. Veena¹, A. P. Kavitha¹, R. Shobha¹**

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ABSTRACT

Background: The aim of this study was to survey the quality and the content of prescription of practitioners and also assess the legibility of alphabet, and short form of the drug.

Methods: A survey of all prescription received by the patients that were written by general practitioners, consulting physicians and dentists in and around Virajpet and Madikeri (south Coorg) was included. The prescriptions were photocopied and returned back to the patients. The prescription was scored and analyzed by a qualified medical investigator.

Results: A total of 171 prescription samples were collected. In most prescriptions, one or more aspects of patient's personal details were missing. Concerned doctor's details also lacked in most cases. 40.3% of the prescriptions were obtained wherein short form of the drug was used for prescribing drug. Legibility of alphabet was also evaluated and the most confusing letter noted in our study was letter "C"; followed by A, T, S, O, G, and D in this study the letter Rx was written in 7% of the prescription and in 19% prescription it was replaced by word "Adv" and 74% of prescription without symbol of Rx.

Conclusions: The present data shows most prescriptions in the study was inadequate and important details were lacking, legibility of prescription was poor in rating.

Keywords: Prescriptions, Handwriting, Survey

INTRODUCTION

Prescription is an integral part of general practitioners for therapeutic purpose. The quality of prescription in general practice and dental practice is an important issue.¹ The prescription is a written order by a physician to the pharmacist to prepare and/or dispense specific medication for a specific patient.² Prescriptions are handwritten documents containing superscription, inscription, subscription, and transcription. Prescribing errors can take many forms, but commonly involve incorrect doses, illegible details or ordering inappropriate medications or drugs that may react with other medications already being given. Irrational drug use could also lead to ineffective and unsafe treatment, exacerbation or prolongation of illness, distress and harm to the patient.³

The U.S. Institute of Medicine stressed the fact that medication errors are the eighth most frequent cause of death in the United States, more frequent than car accidents, breast cancer or AIDS. It is estimated that iatrogenic injury results in 44,000-98,000 preventable deaths in the United States each year.⁴

Hence, the present study was done to assess and evaluate various forms of prescription errors in routine medical and dental practice.

METHODS

A cross-sectional survey of the 171 prescription received by the patients that were written by general practitioners, consulting physicians and dentist in the region in and around

Virajpet and Madikeri were included. The prescribing doctors were unaware that their prescriptions were being audited. The prescriptions obtained therein were photocopied and returned to patients. The photocopies were retained as the sample proof of the study. The prescription was scored and analysed by a qualified medical investigator.

The prescriptions were assessed on the following parameters in each prescription.

1. Patient information (five parameters):^{5,6}
 - Name, age, sex, address, date
2. Doctor's information (four parameters):
 - Name of the doctor, doctor registration number, contact number, signature
3. Legibility of alphabet of the drugs prescribed
4. Short forms of drugs
5. R_x - symbol
6. Whether the prescription was legible (four point rating system was used)⁶
 - Score 1: Prescription details are clear and legible
 - Score 2: Clear but require effort to read
 - Score 3: One aspect not clear (patient name/drug name)
 - Score 4: More than one aspect not clear.
7. The details of drug prescribed were also rated (four points)
 - Score 1: Clear and legible, drug details present
 - Score 2: Clear but require effort to read
 - Score 3: Criteria not met for one drug
 - Score 4: Criteria not met more for than one drug.

Exclusion criteria

Prescriptions written by nursing attendants or verbal prescriptions were not included in the data analysis.

RESULTS

A total of 171 prescription samples were collected. In most of the prescription, one or more aspects of patient's personal details were missing. Concerned doctor's details also lacked in most cases.

Figure 1 shows patient information (missing information):

- Patient name: 3 (1.8%)
- Patient age: 10 (5.8%)
- Patient sex: 96 (56.9%)
- Patient address: 164 (95.9%)
- Date: 11 (6.4%).

Figure 2 shows doctor details (missing information):

- Doctor registration number: 133 (77.7%)
- Name of the doctor: 61 (35.6%)
- Signature: 44 (74.3%)
- Contact number: 81 (47.3%).

In a comparison of the legibility of prescription four point scoring system considered.

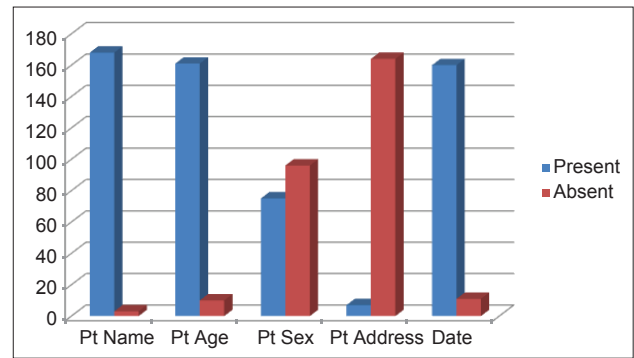


Figure 1: Patient details.

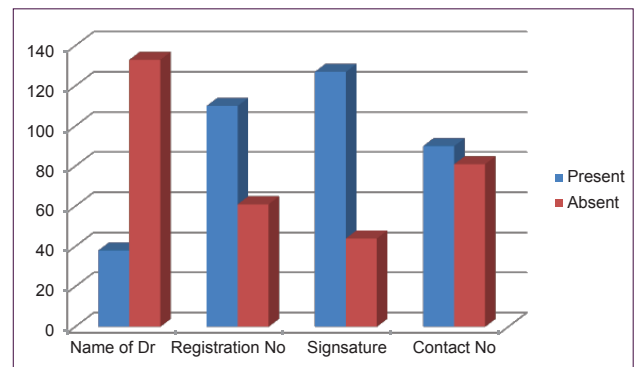


Figure 2: Doctor's details.

Figure 3 shows legibility of prescription:

- Score 1: 45 (26.3%)
- Score 2: 61 (35.6%)
- Score 3: 27 (15.8%)
- Score 4: 38 (22.2%)

Figure 4 shows legibility of drug details:

- Score 1: 45 (26.3%)
- Score 2: 65 (38%)
- Score 3: 21 (12.3%)
- Score 4: 40 (23.4%)

40.3% of the prescriptions were obtained wherein short form of the drug was used for the prescribing drug (Figure 5).

Legibility of alphabet was evaluated and the most confusing letter noted in our study was letter "C"; followed by A, T, S, O, G, and D (Figure 6).

In this study, the letter Rx was written in 7% of the prescription and in 19% prescription it was replaced by word "Adv" and 74% of prescription without symbol of Rx (Figure 7).

Statistical analysis

The data were analyzed using Statistical Package for the Social Sciences software version 17 (IBM, NY, USA).

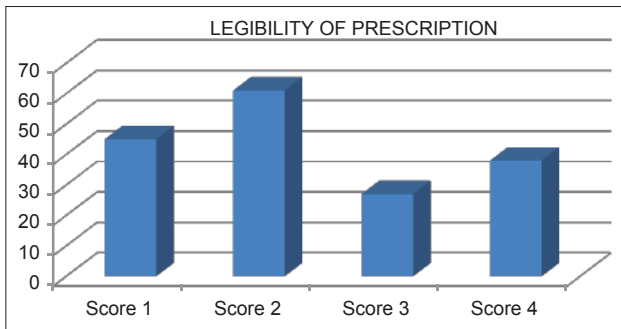


Figure 3: Legibility of prescription, (1) Score 1: Prescription details are clear and legible, (2) Score 2: Clear but require effort to read, (3) Score 3: One aspect not clear (patient name/drug name), (4) Score 4: More than one aspect not clear.

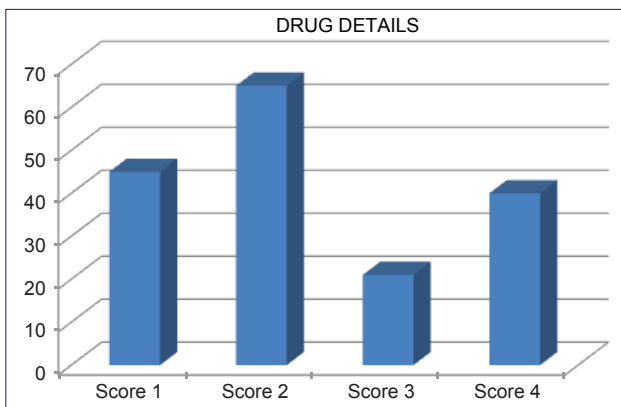
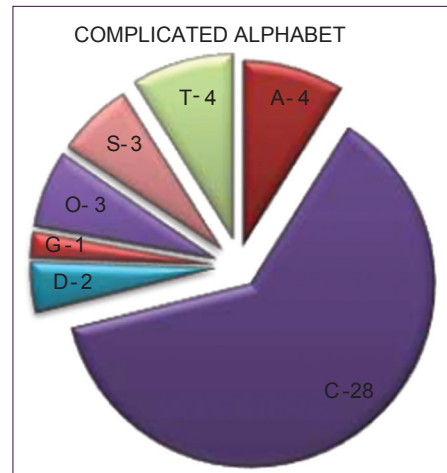


Figure 4: Drug details, (1) Score 1: Clear and legible drug details present, (2) Score 2: Clear but requires effort to read, (3) Score 3: Criteria not met for one drug, (4) Score 4: Criteria not met more than one drug.

DISCUSSION

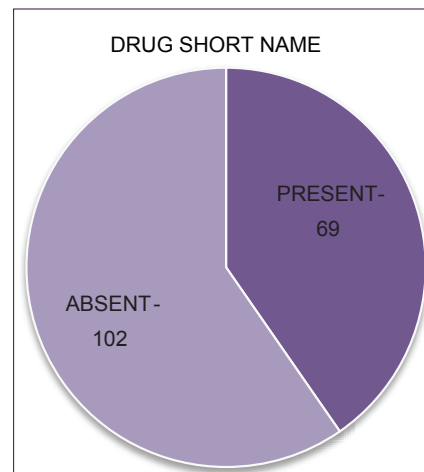
This study have shown some interesting and disappointing results. In most prescriptions one or more aspects of patient's personal details were missing patients name was lacking in (1.8%) of prescriptions, age in 5.8%, sex in 56.9%, address in 95.9%, date in 6.4%. Concerned doctor's details were also lacking in most cases. Name of the doctor was lacking in 35.6% of prescriptions, Doctor's registration number was absent 77.7% of the prescriptions, signature in 25.7%, contact number 47.3%. This will pose problem for proper record maintenance and give rise to many medico legal complications. In the literature studies pertaining to errors in the body of prescription are available.^{4,5}

In the present study score was used to evaluate errors in the body of prescriptions. Legibility of prescription (four point rating system) Score 1: Prescription details are clear and legible, (26.3%), Score 2: Clear but require effort to read, (35.6%), Score 3: One aspect not clear (35.6%, patient name/drug name), Score 4: More than one aspect not clear (22.2%). Legibility drug details of the prescription were also four point rating system. Score 1: Clear and legible



C	16.3%
A	2.3%
T	2.3%
S	1.7%
O	1.7%
G	1.1%
D	0.5%

Figure 5: Complicated alphabet.



Drug short name present	40.3%
Drug short name absent	59.6%

Figure 6: Drug short name.

drug details present (26.3%). Score 2: Clear but require effort to read (38%). Score 3: Criteria not met more for one drug (12.3%). Score 4: Criteria not met more than one drug (23.4%). Similar to studies done earlier.^{5,6}

To the best our knowledge, there are no studies done in the past including scoring criteria for assessing drug short forms of the drugs and legibility of the drug prescribed. In the present study, 40.3% new short forms of generic and trade names were used. Short forms may vary from person to person. Usage of short forms may create confusion regarding

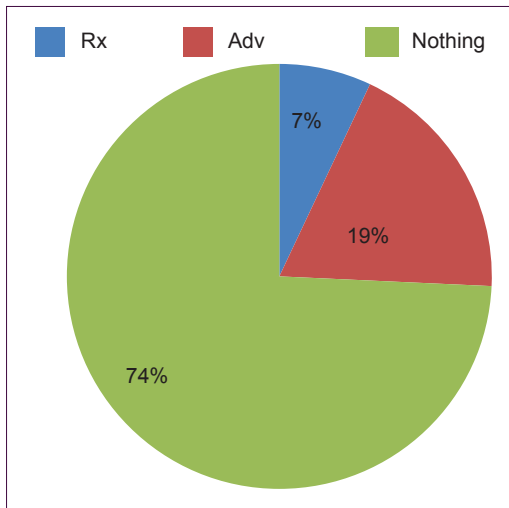


Figure 7: R_x:

what exactly is the drug mentioned. This can lead to wrong dispensing of drugs.

In addition legibility of the alphabets were also evaluated. We noticed most complicated alphabets C (16.3%), A (2.3%), T (2.3%), S (1.7%), O (1.7%), G (1.1%) and D (0.5%). In our study R_x symbol was written in 7% prescriptions, 19% of the prescription instead of R_x written “Adv” and 74% prescription without symbol R_x. This is in accordance with the observation of Jain et al.³

Limitations

Study was conducted around a small area. This does not represent prescription pattern across the state. More than one prescription of the same doctor might have been considered, inter-observer variability. The present data shows most prescriptions in the study were inadequate and important details were lacking, legibility of prescription was poor in rating.

CONCLUSION

To minimize errors doctor should be educated on rational drug prescription. Medical Council of India has approved a draft notification that directs the doctor to write the drug

prescription in full capital letters and has forwarded the draft to the Health Ministry for endorsement. It’s necessary that we develop and use standardized “ideal” format for all prescriptions computerized prescription can be a better option.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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