INTRODUCTION

A drug prescription is often the endpoint of a patient’s visit to a medical practitioner. As an instruction from a prescriber to a dispenser, it is considered to be a medico legal document that should be written legibly, accurately and completely [1].

Prescribing physicians as well as those involved in the execution of the prescription hold legal responsibility for the prescription. Although the prescription format may vary slightly from one country to another, most countries agree on the core elements that should be included in the prescription order.

These are: prescriber’s name, address, telephone number and signature; patient’s name, address, age and weight (important at the extremes of age); prescription date; drug name (preferably generic), formulation, strength, dose, frequency of administration, quantity prescribed, reason for prescribing and instructions for use [3].

A prescription should consist of the following seven parts:

1. Date, Identification of the prescriber
2. Name of the patient and information as to age.
3. Superscription or heading.
4. Observation at the level of Dispensary and assessment of the level of Understanding by the Patients by interview was conducted.
5. Subscription or directions to the compounder.
6. Signature or directions for the patient.
7. Prescriber’s signature, seal of the prescriber.

The cost of drug prescription poses problems in developing countries such as India, which allocates only 0.9% of its Gross Domestic Product (GDP), i.e. Rs. 200 per capita, to health. The allocation for meeting the cost of the drugs is even meager.

Such information is needed to set up continuous medical education programs to encourage rational prescribing among physicians. It also helps in setting up monitoring systems to ensure good pre-scribing habits and to maintain them. Hence an audit of current drug prescription writing for completeness of prescription information study was conducted with a view to improve the best prescribing patterns.

METHODOLOGY

1. The retrospective study was carried out over one-month period in a 1000 bedded tertiary care hospital. Patient and drug data was recorded from out-patient prescription using Systematic Random Sampling.
2. The data was collected in customized performa in the form (Annexure 1) of an audit questionnaire.
3. Analysis of the prescriptions for completeness of information like the presence of OPD number, name, age and sex of patient, diagnosis, name, dose and duration of prescribed drugs was conducted.
4. Observation at the level of Dispensary and assessment of the level of Understanding by the Patients by interview was conducted.

RESULTS & DISCUSSION

The study was performed to identify the degree to which physicians conform to guidelines for prescription writing during their clinical practice. A total of 1200 outpatient prescription from a tertiary care hospital were screened for the essential elements of prescriptions according to published guidelines.

Our observations showed that prescriptions were deficient in information of the prescriber as none of the prescriptions contained the telephone number of the prescriber. These elements should be included according to WHO [5]. However, the hospital does not require that the telephone number and address of the prescriber be included in the prescription. Also, in this case, the address might not be relevant because physicians are required to stamp the prescription. The stamp usually contains the name, title and address of physicians.

Our study also showed that 16.3 % of prescriptions were deficient in the prescriber name and the prescriber signature (Figure 1). Balbaid and Al-Dawood [6] reported that prescriptions from some Ministry of Health hospitals in Jeddah city were deficient in physician’s name and signature in 14% and 16.3% of cases, respectively. Meyer [7] from a hospital and clinic in Texas mentioned that a survey of outside provider pharmacies requesting information on problems related to prescriptions indicated that 96% of responders believed that failure to print the prescriber name was one of the main problems.

Figure 1. Parameters absent from the prescription audited

Francois et al. [8] from a university hospital in France and Blatt et al. from a central hospital in Yaounde, Cameroon, [9] have shown that 20%–30% of prescriptions which did not include the name and the function of the prescriber. Anderson and Beurling [10] from Copenhagen University Hospital reported that among the
The most frequent errors of omission in prescriptions was inadequate identification of the physician. These deficiencies indicate how things are made difficult for the dispensing pharmacist to contact the prescriber in case of any clarification.

Concerning patient information, our finding that prescriptions were deficient in patient's name and age in 31.1% and 28.1% of prescriptions, respectively, are in contrast with the results of Balbaid and Al-Dawood [7]. However, Bawazir [11], in a large study from 22 major hospitals from all health regions within Saudi Arabia, reported that patient age was missing in 18.6% of prescriptions, while patient name and sex were missing in 0.2% of prescriptions.

The name of the patient was present on 68.9% of prescriptions, whereas the patient's age only 71.1% and sex of the patient was not mentioned in any prescription (Figure 1). Of prescriptions that included the patient’s age, 13.4% for those aged 1-5 years and 57.7 % for those aged >60 years of age and remaining between 5-60 years of age.

The dose units were not mentioned in almost one-fifth (11.4%) of prescriptions. Most of the prescriptions (94.0%) did not contain the quantity that the pharmacist should dispense. The directions for patient use were complete in only 68.5 % of prescriptions, whereas the patient's age only 71.1% and sex of the patient was not mentioned in any prescription (Figure 1).

We found that 0.4% of prescriptions did not include the strength of medication, the dose units were not included in 0.3 % and the quantity of medications was not included in 0.3 % of prescriptions (Figure 1). Apparently, these parameters are left to the pharmacist to decide upon and the implications for the duration of therapy will be dependent on the individual pharmacist.

Our findings, that 90.1%, 5.0% and 4.9% of prescriptions contained generic names, brand names both generic and brand names, respectively, is peculiar in the sense that some physicians prescribed drugs within the same prescription utilizing both generic and brand names. However our study found that using generic names in prescriptions gives flexibility to the dispensing pharmacist and may be of economic benefit to the patient.

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The study also showed that the prescription was illegible or unreadable in one-third (0.9 %) of prescriptions and 7.1% legible with effort (Figure 2). Anderson and Beurling [10] reported that omitting the indication for use was among the most frequent errors in prescriptions.

Our finding, that almost (33.9%) of prescriptions suffered poor handwriting, is in contrast with what was found by Balbaid and Al-Dawood [6] who reported illegible handwriting in only 7.2% of prescriptions. The high percentage of poor handwriting we found could be due to the fact we considered the presence even of a single unclear word or a dose unit as poor handwriting for the whole prescription.

Poor handwriting is a serious problem that might lead to dispensing the wrong medication to the patient with serious or even fatal results [13]. Meyer [6] found that 15% of prescriptions studied had illegible handwriting. Furthermore, in a survey of outside provider pharmacies, 69% of responders stated that illegible handwriting was one of the main problems they encountered. Makonnen et al. [12] also reported illegible prescriptions in 15% of cases.

Our study showed that most of the patient in the OPD had only undergone primary education as the level of understanding ranged from 50- 70 % regarding route of administration, side effect, dosage and follow up of the OPD dates (Figure 3).

In conclusion, the prescriptions we reviewed suffered serious deficiencies and were not properly written. The use of capital letters while prescribing drugs by the treating physician can also be implemented for legibility of the prescriptions. The need for physician education on appropriate prescription writing is obvious and follow-up on the matter is needed for newly qualified physicians. Furthermore, inclusion of tutorials about prescription writing in the final clinical year curriculum of medical students before graduation is necessary. Administrative monitoring of the prescription habits of physicians is needed both to improve the process and to maintain the improvement.

CONCLUSION

With the advent of Consumer Protection Law and various other legal and ethical perspectives in the practice of medicine, documentation has become a major defending factor for the practicing physicians. In such a case, the prescription you write can be a well-documented medical advice to defend oneself in the future litigations or from the medical negligence.
APPENDIX ‘A’

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